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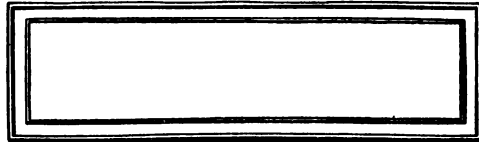
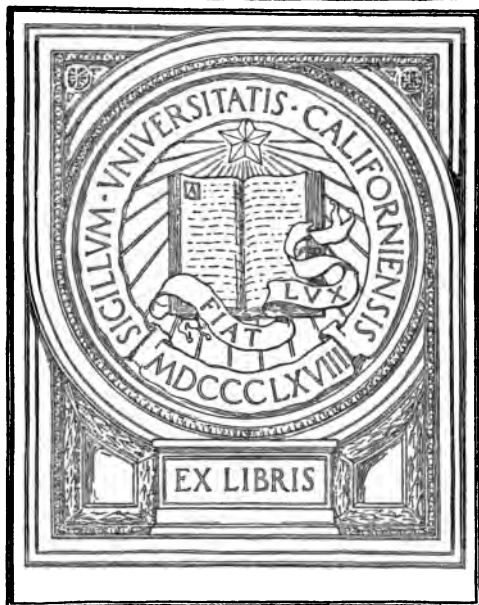
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Professor Ernest A. Hersam









THE
MINING WORLD INDEX
of Current Literature

VOL. I

FIRST HALF YEAR

1912

By CARPEL L. BREGER
Associate Editor
Mining and Engineering World

AN INTERNATIONAL BIBLIOGRAPHY OF MINING AND THE MINING SCIENCES (MINING,
ORE DRESSING, METALLURGY, ASSAYING, GEOLOGY, LAW, ETC.)

*Compiled and Revised Semi-Annually from the Index of the World's Current
Literature Appearing Weekly in "Mining and Engineering World."*

MINING WORLD COMPANY
MONADNOCK BLOCK
CHICAGO
1912

PREFACE.

On January 7, 1911, there began in *Mining and Engineering World* (then *The Mining World*) a new and important departure in mining journalism, viz.: A classified index to the whole world's technical literature on the mining, metallurgical and affiliated mineral industries. Since that date the index has appeared each week, covering usually 18 to 24 columns of closely, yet neatly, printed matter.

The desirability of compiling the ever-accumulating weekly indices into semi-annual or annual volumes has long been apparent. After considerable study, the semi-annual edition was preferred to the annual. The present, or first, volume covers the current literature of the first semester of 1912. It is planned to publish these with the same promptness and dispatch that has characterized and will characterize the weekly indices; the semi-annual volumes will be issued within a few weeks of the end of the current half-year to which each volume will apply.

There is considerable additional value in the semi-annual volume in the way of revision. This revision includes among other things, the subdivision of the larger subject headings. Another valuable feature in the revision is in indicating where articles or books have been republished in whole or in abstract in other journals—indicating, in short, practically all the different, commoner technical journals in which an article has appeared. This feature will be particularly relished by those whose library facilities are rather limited, and this applies to nearly all mines and mining centers.

Of course, the work is not perfect. It is in fact open to a good deal of criticism. But considering the multitude and variety of the subjects treated, and the diversity of tastes and demands of the prospector, the practical miner, the mill man, the metallurgist, the layman, the operator, the student, the scientist, and the trained or expert engineer (to all of whom the work caters) we believe we have succeeded fairly well in hitting the happy combination of just the right mixture of efficient thoroughness, extreme simplicity, practical feasibility, and immediate and permanent value.

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TABLE OF CONTENTS.

Title page; Preface; Table of Contents.....	i-vii
Explanations and Abbreviations.....	viii
The Mining World Index.....	1-317
Authors' Index.....	ix-xxii
Subject Index.....	xxiii-xxxi

I GEOGRAPHIC.

CHAPTER I.—UNITED STATES.

(Including Alaska.)

United States at Large.....	1
Alabama.....	2
Alaska.....	2
Arizona.....	3
Arkansas.....	4
California.....	4
Oil and Gas.....	4
Gold Dredging.....	5
Gold Mining, Copper, and Miscellaneous.....	5
Colorado.....	6
Delaware.....	8
Florida.....	8
Georgia.....	8
Idaho.....	9
Illinois.....	10
Indiana.....	10
Iowa.....	10
Kansas.....	10
Kentucky.....	10
Louisiana.....	10
Maine.....	11
Maryland.....	11
Michigan, Minnesota and Lake Superior.....	11
Region: (a) Iron.....	11
(b) Copper.....	12
(c) Miscellaneous.....	13
Mississippi.....	13
Missouri.....	13
Montana.....	13
Nevada.....	14
New Mexico.....	15
New York.....	16
North Carolina.....	16
North Dakota.....	16
Ohio.....	16
Oklahoma.....	16
Oregon.....	17
Pennsylvania.....	17
Rhode Island.....	18
South Carolina.....	18
South Dakota.....	18
Tennessee.....	19
Texas.....	19
Utah.....	20
Vermont.....	21
Virginia.....	21
Washington.....	21
West Virginia.....	21
Wisconsin.....	22
Wyoming.....	22

CHAPTER II.—NORTH* AND SOUTH AMERICA; AFRICA; ASIA; OCEANIA.

(*Excepting U. S. and Alaska.)

Canada and Newfoundland—	
Canada at large.....	24
Alberta.....	24
British Columbia.....	24
Manitoba.....	26
New Brunswick.....	26
Newfoundland and Labrador.....	26
Nova Scotia.....	26
Ontario.....	26

Canada and Newfoundland (continued)—	
Quebec.....	28
Saskatchewan.....	28
Yukon.....	28
Mexico—	
Mexico at large.....	29
Chihuahua.....	29
Durango.....	29
Quanaajuato.....	29
Guerrero.....	29
Hidalgo.....	29
Jalisco.....	30
Lower California.....	30
Mexico (State).....	30
Oaxaca.....	30
Puebla.....	30
San Luis Potosi.....	30
Sinaloa.....	30
Sonora.....	30
Tamaulipas-Vera Cruz.....	31
Tepic.....	31
Zacatecas.....	31
Central America.....	31
Cuba.....	31
West Indies.....	32

SOUTH AMERICA

Argentina.....	32
Bolivia.....	32
Brazil.....	32
Chile.....	33
Colombia.....	33
Ecuador.....	33
Gulana.....	33
Peru.....	34
Venezuela.....	34

AFRICA

British South Africa.....	34
Cape Colony.....	34
Natal.....	35
Orange Free State.....	35
Rhodesia.....	35
Transvaal.....	
a. Gold Mines, Gold Mining.....	35
b. Gold Mills, Milling.....	37
c. Coal, Oil, Diamonds, Non-Metals.....	38
d. Tin, Copper, Miscellaneous.....	38
Congo; Central Africa.....	39
East Africa.....	39
West Africa.....	39
North Africa.....	40

ASIA

Arabian Peninsula.....	41
China.....	41
East Indies.....	42
India.....	42
Japanese Empire.....	43
Malay.....	44
Persia.....	44
Philippines.....	44
Russia in Asia.....	45
Slamese Peninsula.....	46

OCEANIA

Australasia.....	
Australasia at large.....	46
New South Wales.....	46
New Zealand.....	47
Northern Territory.....	47
Papua.....	47

MINING WORLD INDEX OF CURRENT LITERATURE.

Australasia (continued)—	
Queensland	47
South Australia	48
Tasmania	48
Victoria	48
Western Australia	49
Polynesia	49

II ORES AND MINERAL PRODUCTS.

(a) Metals and Metal Ores.

CHAPTER III.—ALLOYS; ALUMINUM—COPPER (Inclusive.)

Alloys (Non-ferrous)	
Brasses, Bronzes, Copper Alloys	50
Aluminum Alloys	50
Antimonial Alloys	51
General and Miscellaneous	51
Pyrophoric Alloys	51
Aluminum	51
Antimony	52
Bismuth	53
Calcium	53
Canadium	53
Cerium	53
Chromium	53
Cobalt	54
Copper	54
United States and Alaska	54
Canada	56
Mexico, Central America, W. Indies	56
South America	56
Europe	57
Africa	57
Asia and Russia	57
Australasia	58
Milling; Smelting; Refining	58
Assaying; Chemistry	60
Uses	61
Brasses, Bronzes, Alloys	61
Statistics; Market Reviews	61
Geology	62

CHAPTER IV.—GOLD; IRON AND STEELS.

GOLD

Gold Fields, Mining, Production	
Pacific Coast States	63
Rocky Mtn. States; Dakotas	63
Eastern, Central and Southern States	64
Alaska; Western Canada	64
Eastern Canada	65
Mexico	66
Central and S. America; W. Indies	66
Europe	67
Asia (including Russia)	67
South Africa	68
Rest of Africa	69
Australasia	69
Dredging; Sluicing; Hydrauliclicking	70
Milling; Metallurgy—	
Ore and Gravel Dressing	70
Cyaniding	72
Chlorination	72
Amalgamation	72
General Milling and Metallurgy	72
Smelting; Refining	73
Assaying; Chemistry	74
Statistical; Market Reviews	74
Geology and Genesis	74

IRON AND STEEL

Ores and Mining—	
Lake Superior Region (including Ontario)	75
Eastern and Southern U. S.	76
Central and Western U. S.	76
Canada	76
Mexico; W. Indies; Cuba	76
South America	77
Scandinavia	77
Germany; Luxemburg	77

Ores and Mining (continued)—

France and Rest of Europe	77
Africa	78
Asia	79
Australia	79
Transportation; Handling	79
Geology; Genesis	80
Ore Dressing; Roasting	80
Briquetting; Sintering (of iron ores, scrap, and flue dust)	80
Iron and Steel—	
Europe	81
Africa, Asia, Australia	82
South America	82
United States	82
Canada	83
Nomenclature	83
Ferro-Alloys	84
Tin-Plate	84
Galvanized Iron	85
Electrolytic Production of Iron	85
Micro-Structure; Ferro-Mineralogy	85
Chemistry (of Iron Ores, Iron and Steels)	85
Corrosion; Properties; Testing	86
Special Irons and Steels	87
Historical	88
Iron and Steels; Miscellaneous	88
Furnace and Heat Treatment—	
Text-books; General Treatises	89
Individual Mills or Plants	89
Blast Furnace Practice	90
Slags; Flue Dust; Gas	91
Steel Manufacturing and Finishing	91
Cementation; Tempering; Annealing	92
Rolling Mills	93
Electric Smelting and Heating	98
Miscellaneous	95

CHAPTER V.—IRIDIUM; LEAD-ZIRCONIUM (Inclusive); MISCELLANEOUS.

Iridium	96
Lead—	
Mines and Mining; Geology	96
Ore Dressing	97
Metallurgy; Chemistry	98
Lithium	99
Manganese	99
Magnesium	100
Mercury	100
Molybdenum	100
Nickel	100
Platinum Metals	101
Radium, Radio-Actives	102
Selenium, Tellurium	103
Silver—	
Canada-Alaska	103
United States	103
Mexico	104
Central and South America	105
Europe	105
Africa	105
Asia	105
Australasia	105
Cyaniding	105
Metallurgy; Chemistry	105
Geology	106
Statistical; Miscellaneous	107
Strontium	107
Thorium and Rare Earths	107
Tin—	
North America	108
South America	108
Europe	108
Asia	108
Africa	108
Australasia	109
Metallurgy, Chemistry	109
De-Tinning	110
Geology	110
Tin Plate; Miscellaneous	110
Titanium	110
Tungsten	111
Uranium	111

MINING WORLD INDEX OF CURRENT LITERATURE.

Vanadium	112
Zinc—	
U. S. and Canada	113
Latin America	113
Europe	114
Asia, Africa, Oceania	114
Geology	114
Ore-Dressing	114
Metallurgy, Chemistry	116
Plating, Galvanizing	117
Miscellaneous	117
Miscellaneous Metals and Non-Metals	117

CHAPTER VI.—NON-METALS.

- (a) Fuels and By-Products.
[Coals, Coke, Gas, Oils, Peat.]

COALS

Mines, Mining, Coal Trade (by countries)—	
Alaska, Western Canada	120
Eastern Canada; Canada	120
Appalachian States; U. S.	120
Central U. S.	121
Rocky Mountain States	122
Latin America	122
Great Britain	123
France, Belgium, Holland	123
Germany, Austria	123
Rest of Europe	125
Africa	125
Asia	126
Australasia	126
Geology and Genesis	127
Breakers and Tipples	128
Sizing, Screening, Washing	128
Use of Low-Grade Coals	128
Briquetting	129
Electricity from Coal Mines	129
Transport, Handling	129
Spontaneous Combustion; Storage	130
Bases of Purchasing	130
Analysis and Testing	131
Combustion, Burning	131
Boiler Tests; Uses of Coal	131
Conservation; Visible Supplies	132
Government Coal Mines	132
Legislation	132
Strikes, Profits, Wages	133
Economics of Coal Industry	133
Miscellaneous	134

COKING; GAS-PRODUCTION; BY-PRODUCTS

Gas Works; Commercial Gas	135
Coke, Coking	135
Producer-Gas, Gas-Producers	136
Peat Gas-Producers	138
Oil Gas-Producers	138
By-Products	138

PETROLEUM AND OILS

Statistics	139
Oil Fields—	
General	140
Western United States	140
Eastern and Central U. S.	141
Southern States	141
Alaska and Canada	141
Latin America, West Indies	141
Russia	142
Middle and East Europe	142
Southern and Western Europe	143
Asia and Africa	143
Australasia	144
Water Problem in Oil Fields	144
Details of Practice at Wells	144
Drilling and Deep Boring	144
Transport, Handling, Storage	144
Shale Oil and Oil Shales	145
Distillation and Distillation Products	145
Chemical Technology; Tests	146
Uses of Petroleum and Products	146
Geology and Genesis	148
General and Miscellaneous	148

NATURAL GAS

Occurrences, Geology	149
Extraction and Use	150
Gasoline from Natural Gas	150

PEAT

Peat	150
------------	-----

CHAPTER VII.—NON-METALS;

- (b) Structural and Ceramics, ,

- (c) Other Non-Metals.

STRUCTURALS AND CERAMICS

Stone, Sands, Gravel—	
Building Stones	152
Sands, Gravels	152
Road Metal; Stone Crushing	152
Quarrying; Stone Cutters	153
Lime, Cements, Concrete—	
Cements:	
Plant and Raw Materials	153
Slag and Iron Cements	154
Tests, Setting, Properties	154
Constitution, Chemistry	155
Production, Statistics, Trade	155
Textbooks, General Works	156
Cement Pipe and Tile	156
Miscellaneous	156
Concrete	156
Cement Gun	157
Lime and Mortar	158
Sandlime	159
Brick and Tile	159
General and Miscellaneous	159
Drying, Pressing, Kilns	160
Tile	160
Ceramics	
Refractories	162
China Clays	162

OTHER NON-METALS

Abrasives	162
Acids (Mineral)	162
Amber	163
Arsenic	163
Asbestos	163
Asphalts and Bitumens	164
Mineral Asphalts	164
Coking, etc., By-Products	164
Testing; Chemistry; Preparation	164
Uses	165
Geology; Classification	165
Barytes	165
Bauxite	165
Borax, Calcium, Corundum	166
Cryolite, Diamonds, Emery, Feldspar	166
Fertilizers—	
Phosphates	166
Guanos	168
Slag Fertilizers	168
Nitrogen Fertilizers; Lime	168
Miscellaneous	168
Potash	169
Fluorspar and Cryolite	169
Fuller's Earth	169
Gems—	
Diamonds	169
Miscellaneous	170
Graphite	171
Gums (Mineral)	171
Gypsum	171
Iodine	172
Meerschaum	172
Mica	172
Magnesite	172
Mineral Waters	172
Nitrates and Nitrogen	173
Paints and Pigments	174
Phosphate; Phonolite	174
Potash—	
General and Miscellaneous	175
Phonolite; Feldspathic Rocks	176
Potash from Sea Weeds	177
Search for Potash in U. S.	177
Kayser Process	178

MINING WORLD INDEX OF CURRENT LITERATURE.

Pyrilte and Sulphur.....	178
Quartz; Feldspar and Silicate.....	180
Salines and Alkalis.....	180
Kayser Process.....	178, 181
Alums, Soda, Alkalis.....	181
Borax, Borates.....	182
Iodine, Chlorine, Bromine.....	182
Potash, Nitrates, Gypsum.....	182
Sulphur.....	178, 182
Talc and Soapstone.....	182

III TECHNOLOGY.

CHAPTER VIII.—MINE AND MINING (1).

Prospects and Prospecting.....	183
Divining Rods; Wireless Telegraphy.....	184
Textbooks; General Treatises.....	184
Surveying and Drafting—	
Surveying.....	184
Textbooks; General Works.....	185
Drafting.....	185
Mine Models.....	186
Excavators; Dredging; Sluicing—	
Dredges and Dredging.....	186
Examination of Dredging Ground.....	187
Sluicing and Hydrauliclicking.....	188
Stripping; Excavators; Power Shovels.....	188
Drilling and Boring—	
Diamond and Core Drilling.....	189
Oil-Well and Deep Boring.....	190
Prospecting Drills.....	191
Stope Drilling.....	191
Drill Steel; Bits; Accessories.....	191
Drill Dust.....	191
Hole Preparation for Blasting.....	192, 194
Miscellaneous.....	192
Mechanical Cutters (Coal cutters, channelers, tunnelers, stone saws).....	192
Explosives and Blasting—	
Permissible Explosives.....	193
Miscellaneous Explosives.....	193
Drill-Hole Preparation.....	194
Fuses and Exploders.....	194
Blasting and Shooting.....	194
Electric Firing.....	195
Safe Handling and Using.....	195
Miscellaneous.....	195
Sinking and Driving—	
Shafts and Shaft Sinking.....	197
Cementation Process.....	198
Freezing Process.....	198
Water and Loose Sands (General).....	198
Tunnels and Tunneling.....	199
Stopping; Drifting; Mining.....	200
Waters (Mine and Mill); Pumps—	
Geology; Inundations.....	201
Water-tight Structures; Grouting, Dams.....	201
Tunnels or Drill-Holes for Drainage.....	202
Siphons.....	202
Disposal of Waste Waters.....	202
Electric and Rotary Pumps.....	202
Compressed-Air Pumping.....	203
Cornish and Steam Pumps.....	204
Pulsator Pumps.....	204
Meters and Gages.....	204
Fire Protection.....	204
Sinking Pumps; Oil Well Pumps.....	204
Text-books; General Works.....	204
Miscellaneous.....	205
Gases; Ventilation—	
Testing; Analysis.....	205
Fans.....	205
Ventilation; Volume and Pressure.....	206
Humidifying; Dust Control.....	206
Firedamp; Coal Dust.....	207
Pathology; Conditioning Mine Air.....	207
Miscellaneous.....	207
Ventilation-Elasting Problem.....	208
Temperatures.....	208
Text-Books; General Works.....	208
Supports—	
Geology; Earth Pressures.....	208
Subsidences; Falls.....	208
Pillars; Pillar Removal.....	209

Supports—(Continued)—

Timbering.....	209
Timber Preservation.....	209
Steel and Iron Props.....	210
Concrete.....	210
Stowing; Packing.....	210
General; Miscellaneous.....	210
Lighting; Signalling—	
Electric Mine Lights.....	210
Acetylene.....	211
Safety Lamps (Oil).....	211
Gas-Testing Lights.....	211
Candles.....	211
General Works on Lighting.....	211
Telephones.....	212
Signalling.....	212
Accounts and Bookkeeping.....	212
Ore Reserves; Estimation and Valuation.....	213
Mine; Miscellaneous and General.....	213
Textbooks on Mining; General Works.....	214
Ore Sampling.....	214, 269

CHAPTER IX.—MINE AND MINING (2).

HAULAGE; HOISTING; CABLES

Cables.....	215
Haulage—	
Animal Haulage.....	215
Face Conveyors.....	215
Locomotives (Steam, electric, etc.).....	216
Track; Cars; Accessories.....	217
Signalling.....	212, 217
Miscellaneous.....	217
Hoisting—	
Headworks; Cars; Shaft Equipment.....	217
Electric Hoisting.....	219
Steam Hoisting.....	220
Compressed-Air Hoists.....	220
Combustion-Engine Hoisting.....	220
Textbooks; General Works.....	220
Signalling; Overwinding; Safety.....	212, 221
Miscellaneous.....	221
Cableways; Trestles; Inclines.....	222

ACCIDENTS

In Mining—	
Gas and Dust Explosions.....	223
Fires.....	224
Miscellaneous Mine Accidents.....	224
In Milling, Metallurgy, etc.....	225

HYGIENE; SAFETY; RESCUE

In Mining—	
Rescue Stations; Rescue Equipment.....	225
First Aid.....	226
Sanitation; Baths; Change Houses.....	226
Miners' Diseases; Pathology.....	226
Firedamp.....	227
Coal Dust.....	228
Electricity.....	229
Fire; Inflammables; Explosives.....	230
Safety in Haulage and Hoisting.....	230
Safety against Flooding.....	231
General; Miscellaneous.....	231
In Mills, Metallurgy, Transportation, etc.....	231
Dust Problem.....	232

LABOR; MANAGEMENT; SOCIOLOGICAL

Labor Conditions, General.....	232
Sociology; Welfare Work.....	233
Time Checking Systems.....	233
Management; Inspection.....	234
Wages; Hours; Strikes; Unions.....	234
Workmen's Compensation; Insurance; Pensioning.....	236

CHAPTER X.—THE MILL AND MILLING

Reduction; Crushing, Grinding, etc.—	
Stamp Milling.....	238
Ball and Tube Mills; Fine Grinding.....	238
Miscellaneous Crushing and Grinding.....	239
Concentration; Sorting, Sizing, Washing—	
General and Miscellaneous.....	240
Washing.....	241

MINING WORLD INDEX OF CURRENT LITERATURE.

Concentration—(Continued)—	
Flotation	242
Electrostatic and Magnetic Separation	242
Dry Placers	243
Amalgamation	243
Cyaniding—	
General; Miscellaneous	243
Agitation; Decantation	244
Precipitation	244
Slimers; Thickeners; Filters	245
Tube Milling; Fine Grinding	238, 245
Chemistry of Cyanide Process	245
Electrocyaniding	246
Cyanide Mills	246
General Papers; Textbooks	247
Mill: General and Miscellaneous	247
Textbooks; General Works	248
Individual Ore-Dressing Plants	248
Drying	248
Conveyors and Handling	248

CHAPTER XI.—METALLURGY AND CHEMISTRY.

Electrometallurgy; Electrochemistry—	
Magnetic and Electrostatic Ore-Dressing	249
Electrolytic Metal Refining	249
Electroplating	249
Electrolysis; Miscellaneous	250
Electrocyaniding	246, 250
Electrosiderurgy	93, 251
Electric Furnaces (Non-Ferrous)	251
Electric Furnaces (Non-Metals, Miscellaneous)	252
Thermic Metallurgy: Roasters, Furnaces, Smelters, Foundries—	
Precious Metal Treatment	253
Base Metals; Miscellaneous	254
Refractories; Lining; Wall Structures	257
Fuels; Combustion	257
Pyrometry	258
Blast and Draft	259
Feeding; Discharge; Slags	260
Fumes; Dust; Gas	260
Blast Roasting; Roasting, Drying	261
Electric Smelting	251, 262
Siderurgy (Chapter 4)	81, 95
Chlorination	262
Cyaniding	243, 262
Amalgamation	243, 262
Metallurgy: General and Miscellaneous	262
Metallography	263
Plating; Coloring	263
Metallurgy: Textbooks	264
Accidents in Metallurgy	225, 264
Hygiene and Safety in Metallurgy	231, 264
Assaying; Chemistry—	
Textbooks, General Works	264
Equipment (Laboratory and Prospector's)	265
Precious and Rare Metals; Ores	265
Base Metals; Metalloids	266
Non-Metals	267
Gases and Liquids	268
General and Miscellaneous	269
Sampling	269
Chemistry of Cyaniding	245, 270
Siderurgic Chemistry	85, 270

CHAPTER XII.—POWER AND MACHINERY.

Miscellaneous; General	271
Lubricants; Gears; Transmission	271
Electricity in Mine, Mill, etc.	
Power Plants; Generators	271
Electric Generation at Collieries	272
Hydro-Electric	273
Power Transmission	275
Converters; Local Transmission; Motors; etc.	275
Motors	276
Storage Batteries; Dry Cells	277
Electric Blasting	195, 277
Electric Lighting	210, 277

Pumps, Fans, Drills	277
Signalling and Telephones	212, 277
Haulage and Hoisting	277
Miscellaneous and General Applications (in Mining)	279
Accidents; Safety and Rescue	280
Miscellaneous and General Applications (in Mills and Transportation)	281
Magnetic and Electrostatic Ore-Dressing	242, 281
Miscellaneous	281
Combustion Engines—	
Oil and Gas Engines for Power	282
Diesel Motors	283
Gas Turbines	283
Blast-Furnace and Coke-Oven Gas Engines	283
Haulage, Hoisting, Traction	283
Compressed Air—	
Compressors; Transmission and Plant	284
Fans and Blowers	285
Haulage and Hoisting	286
Pumping; Drilling; Miscellaneous Mine and Mill Applications	286

Steam—	
Furnaces; Fuels; Combustion	287
Boilers and Feed	288
Steam Turbines	289
Engines; Accessories	290
Hoisting; Miscellaneous Applications in Mining and Metallurgy	291
General; Miscellaneous	291
Hydraulic Power	291
Hydro-Electric	273, 291

CHAPTER XIII.—MISCELLANEOUS TECHNOLOGY.

Wastes Disposition—	
Fumes; Flue-Dust; Furnace Gas; Slag	293
Mine and Mill Waters	294
Tailing; Sludge	294
Use of Waste and Low-Grade Fuel	295
Briquetting	295
General; Miscellaneous	296
Transportation; Storage; Handling—	
Coal Storage and Handling	129, 297
Oils; Inflammables; Explosives	297
Docks; Ships; Shipping	297
Cranes	298
Lifting Magnets	299
Cableways	222, 299
Elevators and Conveyors	299
Bins and Pockets	300
Steam Shovels; Buckets	188, 300
Motor Trucks; Tractors	300
Transport in Undeveloped Country	300
Railroads; Miscellaneous	300
General Textbooks	301
Ore Genesis; Mining Geology—	
Mine and Underground Waters	301
Rock and Deep Temperatures	302
Mineralization	302
Vulcanism; Metamorphism; Contact Deposits	303
Tectonics: Faults, Folds, etc.	304
Textbooks, General Works	304
Geology of Goldfields	305
Carbons and Hydrocarbons	306
Silver-Lead-Zinc and Sulphides	307
Geology-Genesis of Placers	308
Iron, Copper, Miscellaneous	308
Law; Legislation; Taxation—	
General and Miscellaneous	310
Taxation	312
Government Ownership; Nationalization	312
Conservation: Pro and Contra	313
Financial; Business Organization—	
Profits, Financing, and Economics	314
Syndicate Organization	315
Educational	316
Historical	317
Filing and Indexing	317

EXPLANATIONS AND ABBREVIATIONS.

The entries show:

- (1) The author of the article.
- (2) A dash if the name is not apparent.
- (3) The title, in italics, of the article or book. Titles in foreign languages are ordinarily followed by a translation or explanation in English.
- (4) When the original title is insufficient a brief amplification is added. This addition is in brackets.
- (5) The journal in which the article ap-

peared; also the date of issue, and the page on which the article begins.

- (6) Approximate number of words. Illustrated articles are indicated by an asterisk (*).

- (7) The price. Articles mentioned will be supplied to subscribers of Mining and Engineering World and others at the prices quoted. Subscribers, however, will be allowed a discount of 5 cts. if the price of the article exceeds 50 cts.

Subjoined is a list of the commoner abbreviations found in this work. They are used chiefly in the names of periodicals, and of associations. The abbreviations will be found easily intelligible at sight, and are what they purport to be—self-explanatory abbreviations, not symbols.

Acad.—Academy; Académie; Accademia.

Afr.—Africa; African.

Akad.—Akademie.

Allgm.—Allgemeine.

Amer.—American.

Archts.—Architects.

Asso.—Association; Associazione.

Ber.—Berichte.

Bol.—Boletín; Boletim; Bollettino.

Bull.—Bulletin.

Bur.—Bureau.

Centralbl.—Centralblatt.

C-R.—Compte-Rendu; Resoconti.

Chem'l.—Chemical.

Chem'y.—Chemistry.

Col'y.—Colliery.

Congr.—Congress.

d.—des (French and German).

Dept.—Department.

Deu.—Deutsche, etc.

Electr.—Electrical.

Engg.—Engineering.

Engr.—Engineer.

Engrs.—Engineers.

f.—for; für.

Gaz.—Gazette.

Geol.—Geological.

Geol'y.—Geology.

Ges.—Gesellschaft.

Gov't.—Government.

Hüttenm.—Hüttenmännische.

Ind'l.—Industrial; Industriel; Industrielle.

Ingr.—Ingenieurs, Ingenieros.

Inst.—Institute; Institut; Instituto.

Instn.—Institution.

Jahresber.—Jahresbericht.

Jahrb.—Jahrbuch.

Jnl.—Journal.

Mag.—Magazine.

Mechl.—Mechanical.

Met'g'l.—Metallurgical.

Met'gy.—Metallurgy.

Mex.—Mexican.

Mittlgn.—Mittellungen.

Mnfrs.—Manufacturers.

Mng.—Mining.

Oestr.—Oesterreichische; Oesterreich.

Proc.—Proceedings.

Quar'ly.—Quarterly.

Rev.—Review; Revue; Revista.

Sci.—Science; Sciences.

Scient.—Scientific.

Soc.—Society; Société; Società.

Suppl.—Supplement; Supplementary.

Trans.—Transactions.

Ver.—Verein.

Verb.—Verband.

Verh.—Verhandlungen.

Zentralbl.—Zentralblatt.

Ztg.—Zeitung.

Zts.—Zeitschrift.

I. GEOGRAPHIC

COMPRISING REFERENCES TO MINING AND MINERAL DISTRICTS, ARRANGED ACCORDING TO COUNTRIES AND STATES.

CHAPTER I.—UNITED STATES.†

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—*Guano Lager auf der Insel Assumption*; [Guano deposits of Assumption I'd, Aldabra group, Seychelles].—Zentralbl. f. Kunst-dünger-Ind., March7,1912; p. 70; 1800 w; 35c.

Also in English in Amer. Fertilizer, March 23, pp. 54-58; 25c.

—*L'Exploitation de la Société de Nickel de Thio*; [Thio nickel smelter and mining developments, New Caledonia].—Bull. du Commerce de N. Calédonie, Feb. 17,1912; Supplement; 300 w; 35c. Abstract in Mining & Engg. World, Apr.27, p. 902; 200 w; 10c.

—*La situation minière de la Nouvelle Calédonie*; [Mining in New Caledonia in 1910; abstract from report of French minister of colonies].—Echo d. Mines, Oct. 12,1911, p. 1015; 2000 w; 35c. Reprint in Jnl. du Four Electric, Oct.15, p. 988; 2000 w; 35c. Also in Soc. Amicale d. Mineurs de Douai, Bull., Nov.25,1911; pp. 754-761; 35c.

—*L'année commerciale 1911*; [Review of mining and metallurgy in New Caledonia in 1911; nickel, chrome, copper, lead, iron, guano, tar].—Bull. du Commerce N. Calédonie, Apr.6,1912; p. 1-4; Apr.20, p. —; 75c. Abstract in Echo d. Mines, June3, p. 642; 1000 w; 35c.

—*Phosphate Industry of Makatea Ocean and Nauru Islands*.—Amer. Fertilizer, Jan.13,1912, p. 56; 1500 w; 25c.

II. ORES AND MINERAL PRODUCTS

CLASSIFIED BY SUBSTANCES, INCLUDING UNDER EACH SUBSTANCE LITERATURE BEARING ON ITS OCCURRENCES, EXTRACTION, METALLURGY OR TREATMENT, USES, ETC.

(a) Metals and Metal Ores.

CHAPTER III.—ALLOYS; ALUMINUM-COPPER (Inclusive).

Alloys (Non-ferrous)

BRASSES, BRONZES AND COPPER ALLOYS

Anderson, J. R.—*Some Good Brass Alloys*; [From "Southern Machinery"].—Mechl. World, Apr.19,1912; p. 189; 1000 w; 35c.

Bassett, W. H.—*Need of Special Alloys for Special Purposes*; [Use and abuse of brasses and bronzes].—Jnl. of Indl. & Engg. Chem'y, March,1912, p. 167; 2500 w; 65c.

Bengough, G. D.—*A Study of the Properties of Alloys at High Temperatures*; [Read to Instn. of Metals].—Engng., Jan.19,1912, p. 90, p. 93; Feb.2, p. 166; 10,000 w*; 50c.

Carpenter, H. C. H.—*Further Experiments on the Critical Point at 470°C. in the Copper-Zinc Alloys*; [Discussion before Instn. of Metals].—Engng., Jan.19,1912, p. 89; Feb.23, p. 265; 7000 w*; 45c.

The paper is published in Internatn. Zts. f. Metallogr., April,1912; pp. 152-171*; 95c.

Gaines, R. H.—*Monel Metal*.—Jnl. of Indl. & Engg. Chem'y, May,1912; p. 354; 4000 w; 65c. Reprinted in Cheml. Engr., July, p. 32; 3500 w; 35c.

Gowland, W.—*Copper and Its Alloys in Early Times*; [Presidential address, Instn. of Metals; abstract].—Engg., Jan.19,1912, p. 87; 1000 w; 30c.

Jänecke, E.—*Die Legierungen von Gold, Silber, Kupfer*; [The alloys of gold-silver-copper].—Zts. f. angew. Chemie, May10, 1912; pp. 935-938; 45c.

Japing, Ed.—*Kupfer und Messung, etc.*; [Copper and brass and the other technically important copper alloys, their production, properties and preparation for metal ware].—Vienna, 1911 (2d edition, by H. Krause); 215 pp; 49 figs; \$1.25, (book).

Johnson, F.—*The Influence of Tin and Lead on the Micro-Structure of Brass*; [Read to Instn. of Metals; abstract].—Engng., Jan.19,1912, p. 91; March15, p. 361; 1500 w*; 50c.

French abstract in Rev. de Métall'gie, June,1912; p. 302; 2000 w*; \$1.15.

Kühl, H.—*Die Geschichte der Bronze-giesserei der alten Welt*; [History of bronze casting in ancient times].—Gles-serer Ztg., Feb.15,1912, p. 119; March1, p. —; 2500 w; 60c.

Leyde, O.—*Mise en briquettes des tournures métalliques et leur valeur en fonderie de fer et de bronze*; [Briquetting of metal scrap in iron and brass foundries; various methods; from "Stahl & Eisen"].—Rev. de Mét'gie, Jan.,1912; p. 37-43*; \$1.15.

Masselon, R.—*Les bronzes magnétiques*; [The magnetic bronzes].—Métallurgie, Dec. 13,1911, p. 787; 750 w; 35c.

Martell, V.—*Alliages et Fonderie de Bronze*; [Bronze alloys and foundry practice].—Paris, 1912; 190 pp.; 127 figs.; \$2.50 (book).

von Miller, H.—*Studien über die Einwirkung der wichtigeren metallischen und nichtmetallischen Zusätze auf normale Kupfer-Zinn-Bronze*; [Effects of adding some of the commoner metals and materials to copper-tin-bronzes].—Métallurgie, Jan.22,1912; p. 63-71*; 50c.

Portevin and Nusbauer.—*Essais sur l'usure des bronzes*; [Tests illustrating the influence of chemical composition on the wear of bronzes].—Rev. de Mét'gie, Feb., 1912; pp. 61-77*; \$1.15.

Vickers, C.—*A New Alloy of High Tensile Strength*; [Copper with chromium and aluminum; from "The Foundry"].—Mechl. World, May24,1912; p. 245; 1100 w; 35c.

—*A Brass Foundry of Modern Appointments*; [Eynons-Evans Mfg. Co. plant, Phila.; 2,000,000 lbs. annual capacity].—Iron Age, May23,1912; p. 1257; 2000 w*; 30c.

—*Blowholes in Composition and Bronze Castings*; [From "Brass World"].—Mechanical World, March8,1912; p. 112; 1600 w; 35c.

—*Economizing of Fuel in the Melting of Brass*.—Castings, Jan.,1912, p. 101; 500 w*; 25c.

—*The Manufacture of Brass and Copper at the Plants of Basse & Selve, Al-tend, Germany*.—Brass World, May,1912; 9½ pp.*; 20c.

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Jacquer, G.—*A New Non-Corrosive and Bullet-Proof Metal*; ["Argillite," an aluminum-copper-bismuth-silicon alloy].—S. Afr. Mng. Jnl., Apr.13,1912; p. 258; 1000 w; 35c.

Masselon, E.—*Fonderie de bronzes d'aluminium*; [Preparation of aluminum bronze in the foundry].—Métallurgie, Jan.17,1912; p. 35; 750 w; 35c.

Rosenhain, W., and S. L. Archbutt.—*Alloys of Aluminum and Zinc*; [10th report to committee of Instn. of Mechl. Engrs., with appendix on a Ternary Alloy of Aluminum with Zinc and Copper].—Engng., Apr.26,1912; p. 578; p. 547; 8000 w; 30c. Also abstracted in Iron & Coal Trades Rev., Apr.26, p. 650; 4500 w; 35c.

Steiner, D.—*Die Hysteresisverluste der*

ferromagnetisierbaren Manganaluminiumbronzon in Abhängigkeit von den Frequenz des Wechselfeldes; [Hysteresis losses in the magnetic manganese-aluminum-bronze alloys in their relation to the frequency of the alternating field].—Darmstadt Techn. Hochschule dissert., 1911; pp. —; (thesis).

Whitney, W. R.—*Alloys*; [Discusses recent and possible future utilization of rarer metals].—Amer. Brass Founders' Asso., Trans., Vol. 5, 1911, p. 44-62; 50c. Also in Amer. Foundrym. Asso., Trans., May, 1911, p. 413; 2500 w; 20c.

Abstract in Castings, July, 1911, p. 171; 2500 w; 20c. Also in Metal Ind'y, July, p. 293; 2500 w; 20c. Also in Mining & Engg. World, Sept. 30, p. 643; 2200 w; 10c. Also in Cheml. Engr., Oct., 1911, p. 397; 2500 w; 35c. Also in Engg. News, Nov. 16, p. 606; 3000 w; 25c. Also in Mechl. World, Dec. 29, 1911, p. 310; 1800 w; 35c.

I. K.—*Aluminium Legierungen*; [Use of aluminum in various commercial alloys].—S. W. Deu. Industrie Ztg., Jan. 23, 1912; p. 35; 1200 w; 35c.

—, *The Properties of Duraluminium*.—Mechanical World, May 8, 1912; p. 209; 500 w; 35c.

—, *Producing Lightweight Alloys*.—Mining & Engg. World, Feb. 24, 1912; p. 449; 800 w; 10c.

ANTIMONIAL ALLOYS

Goldberg, G.—*Einfluss der Umschmelzung und Abkühlung auf die chemischen und mechanischen Eigenschaften von Lagermetallen*; [Influence of remelting and cooling of bearing metals on their chemical and mechanical properties].—Gieserei Ztg., Jan. 15, 1912; p. 41; Feb. 1, p. 83; 3500 w; 50c.

Norlin, E.—*Metod för analys af hvitmetaller*; [Methods of analysis of white metal, lead-antimony alloys].—Jernkontor. Annaler, Bihang; Feb. 15, 1912; pp. 91-112; 45c.

Parravano, N., and P. de Cesaris.—*Die Arsen-Antimon Legierungen*; [The arsenic-antimony alloys and compounds].—Internat. Zts. f. Metallogr., Jan., 1912; pp. 70-75; 95c.

Wemple, L. E.—*New Process for Refining Antimonial Lead*; [Babbitt type and bearing metals; from Brass World].—Mining & Engg. World, Feb. 10, 1912; p. 356; 600 w; 10c.

—, *Traitement des minerais sulfurés d'antimoine et d'arsenic*; [Treatment of antimony and arsenic sulphides].—Rev. d. Produits Chimiq., March 1, 1912; p. 478; 1000 w; 75c.

GENERAL AND MISCELLANEOUS

Barth, O.—*Die Erhöhung der chemischen Widerstandsfähigkeit mechanisch noch gut bearbeitbarer, für Konstruktionszwecke verwendbarer Legierungen*; [Increasing the chemical resistivity, without diminishing the mechanical efficiency or workableness, of metal alloys available as structural material; 1: Addition of cobalt to bronzes; 2: Cerium to aluminum].—Metallurgie, Apr. 22, 1912; p. 261-276*.

Friedrich, K. and A. Leroux.—(1) *Silber und Schwefelsilber*; (2) *Blei und Silber*; (3) *Kupfer, Silber und Blei*; [Alloys and smelter compounds of (1) silver and silver-sulphides, (2) lead-silver, (3) copper-silver-lead].—Inst. f. Metallographie, etc., an Freiberg, Mittheilg. f. 1910; (1), pp. 47-56*; (2), pp. 57-65*; (3), pp. 117-138*; 33.20.

Guertler, W.—*Die praktische Bedeutung*

[Practical applications of metallography for the alloys-foundryman; read to Ver. Deu. Giessereifachleute, Berlin section].—Gieserei Ztg., March 1, 1912; p. 137; March 15, p. 177; 10,000 w; 50c.

Gürtler, W.—*Theoretisches zur Konstitution der Zinn-Kadmium Legierungen*; [Theoretic notes on the metallurgy of the tin-cadmium combinations; discusses Schleicher's paper].—Internat. Zts. f. Metallogr., Jan., 1912; p. 90-103*; April, p. 172-177*; \$1.50.

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Kobayashi, M.—*Ueber die Legierungen des Tellurs mit Zink*; [Alloys of tellurium and zinc].—Internat. Zts. f. Metallogr., Jan., 1912; p. 1-69*; 95c.

Lelong, A., and E. Mairy.—*Traité Pratique de Fonderie*; [Manual of Foundry Practice; iron, malleable iron, steel, copper and alloys].—Paris, 1912; 2 volumes; pp. 659, 512; (book).

Price, W. B. and R. K. Meade.—*The Technical Analysis of Brass and the Non-Ferrous Alloys*.—London, 1911; pp. —; \$2.75 (book).

Schleicher, A. P.—*Experimentelle Untersuchungen am System Cd-Sn*; [Experimental researches on the combinations of tin and cadmium].—Internat. Zts. f. Metallogr., Jan., 1912; p. 76-89*; 95c.

Wachenfeld, H.—*Die Metall- und Eisen-giesserei mit besonderer Berücksichtigung der Legierungen und Gatterungen für den Maschinenbau*; [The iron and metal foundry, with special reference to the alloys and mixtures for metal machinery].—Halle, 1911; 112 pp; 15 figs.; \$1.75 (book).

Weidig, M.—*Metallurgische und Technologische Studien auf dem Gebiete der Legierungs-Industrie*; [Metallurgic and technologic studies in industrial alloys].—Berlin, 1911; pp. —; \$2 (book).

—, *Magnetic Properties of Alloys*; [Discussion before Faraday Soc.].—Electr. Rev., May 24, p. 860; 3500 w; 35c. Also in Electrician, May 31, 1912; p. 319; 5000 w; 35c. Also in El. Rev. (Chicago), June 8, 1912; p. 1120; 2400 w; 25c.

PYROPHORIC ALLOYS

See under Cerium.

Aluminum

For alums see under "Salines and Alkalis" (Non-Metals).

For Aluminum Alloys see under "Alloys (non-Ferrous)."

Ashley, G. H.—*Bauxite Mining in the State of Tennessee*; [From "Resources of Tennessee"].—Mng. Sci., Jan. 4, 1912, p. 8; 1800 w; 20c. Also in Mines & Minerals, Feb., 1912, p. 419; 2500 w; 35c. Also in Mining & Engg. World, March 9, p. 557; 1600 w; 10c.

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Barth, O.—*Additions to Improve Alloys*; [In German].—See under Alloys.

Baumann, R.—*Versuche mit Aluminium geschweisst und ungeschweisst, bei gewöhnlicher und höherer Temperatur*; [Researches with aluminum at ordinary and at high temperatures].—Ver. Deu. Ingr., Zts., Dec. 2, 1911, p. 2016; 2000 w; 50c.

Borchers and Schirrmelcher, — *Verbesserung der Eigenschaften des Aluminiums*; [Improvement of aluminum by addition of cobalt; German Pat. No. 242,313].—SW. Deu. Industrie Ztg., Feb. 20, 1912, p. 93; 500 w; 35c.

Brislee, F. J.—*The Physical Constants of Aluminum*; [Density and coefficient of expansion].—El. Rev. (London), Jan. 5, 1912, p. 37; 500 w; 35c.

Cazes, E.—*L'état actuel de l'industrie des aluns et du sulfate d'alumine*; [Present status of the alum and aluminum sulfate industries; from Rev. de Chimie Appliquée].—Jnl. du Four Electrique, Feb. 1, 1912; p. 56; 3000 w; 35c.

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Dusauguey, E.—*Les conducteurs d'électricité en aluminium*; [Aluminum electrical conductors].—Paris, 1912; 140 pp; 60 figs; \$2.50 (book).

Dux.—*Die Aluminium Industrie A. G. Neuhausen und ihre Konkurrenz-Gesellschaften*; [The Neuhausen Aluminum Industry Co. and its affiliated concerns].—March 1, 1912; p. 174; 3000 w*; 45c.

Flusin, G.—*L'industrie de l'aluminium*; [Methods of aluminum production in France].—Houille Blanche, Oct.-Nov., 1911; pp. —; 50c.

German abstract in Zts. f. Elektrochemie, Luzerne, Switzerland; 1912; pp. —; \$1 (pamphlet).

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Grossmann, H.—*Zur Geschichte der französischen Aluminiumindustrie*; [Historical development of the aluminum industry in France].—Zts. f. Elektrochemie, March 1, 1912; p. 162; 1000 w; 45c.

Guillet, L.—*Praktische Erfahrungen bei der Aluminiumerzeugung im elektrischen Ofen*; [Practical experiences with electrometallurgy of aluminum; German abstract from paper in Soc. d. Ingra. Civ. France, Bull. No. 10, 1911].—Elektrotechnik & Maschinenbau, Jan. 28, 1912; p. 85; 500 w; 35c.

Spanish abstract in Rev. Minera, March 24, 1912; p. 143; 3500 w; 35c.

Abstract on manufacture of aluminum paper and aluminum powder. In French in Rev. de Métég., March; pp. 147-159*; \$1.15. Also in Jnl. du Four Electrique, Apr. 1, p. 151; Apr. 15, p. 175; 3000 w*; 50c. In Italian in Rassegna Mineraria, Jan. 21, 1912; p. 49; 2800 w; 35c.

Herz, W.—*Die Löslichkeit von Aluminiumhydroxyd in Natronlauge*; [The solubility of aluminum hydroxide in sodium solution].—Zts. f. Elektrochemie, Jan. 1, 1912, p. 1; 1000 w; 40c.

Jacob, A.—*Aluminum Conductors*.—Electrician, June 7, 1912; p. 370; 400 w; 35c.

Larsen, E. S.—*Alunite in the San Cristó-*

bal quadrangle, Colo.—U. S. Geol. Survey, Bull. 530-F; 1912; 7 pp.*; 20c.

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Pannell, E. V.—*The Characteristics of Copper vs. Aluminum Overhead-Line Conductors*.—El. Rev. (London), May 10, 1912; p. 771; May 17, p. 815; 5000 w; 50c. Abstract in Canadian Engr., July 18, p. 181; 4000 w*; 25c.

Phalen, W. C.—*Bauxite and Aluminum*; [Production in U. S., 1911].—U. S. Geol. Surv., Mineral Resources f. 1911; 1912; 19 pp.; 20c. Abstract in Mining & Engg. World, May 11, 1912; p. 997; 3000 w; 10c.

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See Alloys, for references to bearing, babbit, type and similar antimonial metals.

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Cohen, Ernst.—*The Allotropy of Metals; [Tin and Explosive Antimony]*.—Faraday Soc., Trans., Nov., 1911, pp. 122-135*; \$4.00.

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—*One of the New Uses for Cadmium*; [Alloy in tungsten electric filaments].—Brass World, Nov., 1911, p. 382; 300 w; 25c. Also in *Mining & Engg. World*, Feb. 3, 1912, p. 289; 300 w; 10c.

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Canadium

See Platinum.

Cerium

See also "Thorium and Rare Earths."

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See Part III of the Index under "Mill and Milling."

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See chapter on Metallurgy in Part III.

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See Part III of the Index under "Mill and Milling."

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Wright, Chas. W.—*Mining Industry in Italy in 1911*; [Sulfur, lead-zinc, iron, quick-silver, copper, pyrite, manganese, antimony, gold, silver and tin].—M. & S. P., Jan.6, 1912, p. 55; 2000 w; 35c.

—*Aussenhandel Spaniens in Bergwerks und Hüttenzeugnissen im Jahre 1911*; [Imports and exports of mineral products in Spain, 1910, 1911].—Glückauf, Apr.13,1912; pp. 607-608; tables; 50c.

—*Bergbau und Hüttenindustrie Italiens im Jahre 1910*; [Statistics of mine and smelter production in Italy, 1910].—Montanist. Rundschau, March16,1912; pp. 251-254; tables; 45c.

—*Bergwerke, Steinbrüche und Salzwerke im Oberbergamtsbezirk Bonn 1911*; [Statistics of accidents and production in the Bonn inspection district, 1911; coal, lignite, iron, zinc, lead, manganese, pyrite, copper, silver and nickel ores; slates; salt].—Glückauf, Apr.13,1912; p. 607-608; tables; 50c.

—*British Mineral Statistics, 1910*; [Review of official report].—Mng. Jnl., Dec. 23, p. 1251; 1800 w; 35c.

—*British Mining Output in 1911*.—Mining & Engg. World, April6,1912; p. 756; 200 w; table; 10c.

—*Bergbau und Hüttenindustrie Italiens im Jahre 1910*; [Review of mining and metallurgy in Italy, and production, in 1910].—Glückauf, Dec.16,1911, p. 1961; 4000 w; tables; 50c.

—*Die belgische Bergwerksindustrie im Jahre 1910*; (Review of mining in Belgium in 1910; chiefly coal, coke and briquetting; also iron, manganese, zinc, pyrite, lead ores).—Glückauf, Nov.11,1911, p. 1769-1772; 50c.

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—*Die Bergbau des Königreichs Sachsen im Jahre 1910*; [Saxony's mineral production, 1910; abstract from official report; chiefly coal, lignite and briquets; also silver-lead, lead-zinc, bismuth, cobalt, nickel, tungsten, iron, tin, fluorspar, chalcopyrite, pyrite, sulphur].—Glückauf, Nov.18, 1911, p. 1805-1808; 50c.

—*Der Aussenhandel Oesterreichs in den Produkten der Montanindustrie im Jahre 1911*; [Ore and mineral imports and exports of Austria 1910 and 1911].—Montanist. Rundschau, Feb.16,1912; p. 160-2; 2000 w; tables; 45c.

—*Der Bergbau in Griechenland 1910*; [Review of production in Greece in 1910; iron, manganiferous iron, manganese, zinc, lead, nickel, chrome, copper, pyrite and pyritiferous ores; magnesite, lignite, gypsum, salt, emery, mill-stones, marble].—Montan Ztg., Feb.1,1912; p. 42; 1000 w; 45c.

—*Der Bergwerksbetrieb im Preussischen Staate während des Jahres 1910*; [Review of statistics of the mining industry of Prussia in 1910; coal, lignite, hydrocarbons, iron, zinc, lead, copper and salt mining; also silver, nickel, arsenic, manganese, sulphur, stone; also smelter output

of pig-iron, zinc, lead, copper, gold, silver, nickel].—Zts. f. d. Berg-, H., u. Salinenwesen, Vol. 59, 1911, Statistical No. 2; pp. 71-151; \$1.00.

—*Die Bergwerks- und Hüttenindustrie Oesterreichs im Jahre 1910*; [Statistics and production in the mining and metallurgical industries of Austria in 1910 and 1909; iron and steel, zinc, lead, silver, mercury, copper, gold, uranium, tin, arsenic, copper and iron sulphates, pigments, coal, graphite, manganese, sulphur, tungsten, asphalt, antimony, salines].—Glückauf, Dec.9,1911, p. 1923-1927; 50c.

—*Die chemische Industrie Dänemarks und seine Ein- und Ausfuhr im Jahre 1910*; [Chemical industry of Denmark, with imports and exports in 1910; cryolite, soda, salt, superphosphate, sulphuric acid, cement].—Chemiker Ztg., Jan. 30,1912; p. 116; 1000 w; 30c.

—*Die Gewinnung der Bergwerke, Salinen und Hütten im deutschen Reich und im Luxemburg im Jahre, 1911*; [Statistics of production of mines, salines and smelters in Germany and Luxemburg, 1911; coal, lignite, asphalt, graphite, oil, rock salt, potash, bitter salts, borax, iron, zinc, lead, copper, silver, gold, arsenic, manganese, pyrite, alums, sulphur, sulphuric acid, sulphates].—Glückauf, May4,1912; pp. 717-721; tables; 50c.

—*Die Produktion der italienischen chemischen Industrie im Jahre 1910 und Ihre Rentabilität*; [Output, value and profits in the chemical, mining and metallurgical industries of Italy, 1910].—Chemiker Ztg., Feb.13,1912; p. 176; 1500 w; tables; 30c.

—*Ein- und Ausfuhr der wichtigsten Bergwerks- und Hüttenzeugnisse im Deutschen Zollgebiet 1911 und 1910*; [Table of imports and exports of mineral and metallurgic products in Germany, 1911 and 1910].—Zts. f. d. Berg-, H. & Salinenw., Vol. 60, No. 1; 1912; p. 52; table; \$1.50.

—*Erzfrage und Deutsche Industrie*; [German ore and metal production, consumption and import requirements; lead, copper, zinc, tin, silver].—Erzbergbau, Jan. 1, 1912, p. 8; 1800 w; tables; 35c.

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—*German Mining in 1911*; [General review of coal, iron, potash, petroleum].—M. & S. P., Jan. 13,1912, p. 105; 1000 w; 20c.

—*Importazioni ed esportazioni italiana negli anni 1910-1911*; [Italian imports and exports, 1910 and 1911; metals and metal ores].—Rassegna Mineraria, May 1,1912; p. 250; tables; 35c.

—*La production minière de nos colonies*; [Output and value of the mineral production of the French colonies].—Soc. Amicale d. . . Mineurs de Douai, Bull.; Feb.10,1912, p. 82; 1000 w; 35c.

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— *Mineral Production of Russia*; [1910, 1911; gold, platinum, copper, zinc, pig-iron, steel, coal].—*E. & M. J.*, June1, 1912; p. 1074; 100 w; table; 25c.

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— *Mineral Resources of Turkey in Asia*; [Trebizond, Mersine, Smyrna and Harput districts; chiefly copper, silver-lead, zinc, chrome iron, iron, emery, mercury, antimony, gold, nitre, coal].—*Levant Trade Rev.*, Nov.,1911, p. 131-156; 75c.

— *Mines Output of Sweden*; [1910 and 1909; iron, coal, silver-lead, copper, zinc, manganese, pyrite, feldspar, quartz, alum].—*Mining & Engg. World*, June1, 1912; p. 1150; 100 w; table; 10c.

— *Notre commerce extérieur en minerais pendant l'année 1911*; [Imports and exports of ores, minerals and mineral products of France, 1911, 1910 and 1909].—*Echo d. Mines*, Feb.8,1912; p. 163; 1000 w; tables; 35c.

— *Output of Minerals under the Coal Mines Regulation Acts During 1911*; [Official preliminary figures for Britain by districts; coal, baryte, clay and shale, fire-clay, igneous rock, iron pyrite, iron ore, limestone, oil shale, sandstone; labor statistics, etc.].—*Coll'y Guardn.*, March8,1912; p. 496; 1000 w; tables; 30c.

— *Output of Greece, 1910*; [Official figures, chiefly iron and lead ore, magnesite, emery; also zinc, manganese, nickel, chrome, copper, pyrite, sulphur, lignite, gypsum, salt, marble, millstones].—*Mining*

World, Feb.24,1912; p. 455; 200 w; table; 10c.

— *Russia in 1911*; [Oil, copper, gold, platinum, manganese].—*Mng. Jnl.*, Jan.6,1912, p. 27; 2000 w; 35c.

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— *Statistik der ober-schlesischen Berg- und Hüttenwerke für das 3. Quartal 1911*; [Statistics of Upper Silesian mining and smelting production, 3d quarter, 1911; coal, iron, lead, zinc, coke, briquets, silver].—*Oberschles. Berg- u. Hüttenm. Ver.*, Zts., Dec.,1911, p. 549-554; tables; 45c.

— *Statistik über die Ein- und Ausfuhr von Erzen und einiger wichtiger Rohmetalle im Jahre 1911*; [Statistics of imports and exports of ores and some of the more important crude metals, Germany, 1911].—*Erzbergbau*, Feb.1,1912; p. 28; 1000 w; tables; 35c.

— *The Prussian Mining Industry*; [General review of coal, iron, zinc, lead, copper, silver, gold, nickel, arsenic, manganese, sulphur, etc.].—*Mng. Jnl.*, Feb.10, 1912; p. 129; 2000 w; 35c.

CHAPTER VI.—FUELS†: COALS; COKE; GAS; OILS; PEAT.

COALS

Coal Mines, Mining; Coal Trade (by countries)

ALASKA-WESTERN CANADA

Bell, Geo.—*Lignite in Saskatchewan*.—Canadn. Engr., Feb.22,1912; p. 327; 600 w; 25c.

Brooks, Alfr. H.—*The Future of Alaska Coal*.—Amer. Mng. Congr., 1911; Proc., Vol. 14; pp. 291-298.

Clapp, C. H.—*Geology of Nanaimo, B. C., Coal District*; [Read to Canadian Mng. Inst.].—Canadian Mng. Jnl., May15,1912; p. 334; 1100 w; 25c.

Fisher, Hon. Walter L.—*Address on Alaska Problems before American Mining Congress*, Oct.27,1911.—Washington, 1911; 26 pp.; (pamphlet).

Reprint in Coal Trade Bull., Nov.1, p. 31; 9500 w; 25c. Abstract and discussion in E. & M. J., Nov.11, p. 925, 934; 5600 w; 25c. Also in Black Diamond, Nov.4, p. 18; 4000 w; 30c. Also in M. & S. P., Nov.25, p. 674, p. 672; 3500 w; 20c. Amer. Mng. Congr., Proc., Vol. 14, 1911, pp. 383-389.

Galloway, C. F. J.—*Bear River Coal Field, B. C.*—Canadian Mng. Jnl., May15, 1912; p. 335; June1, p. 368; 1500 w; 40c.

Galloway, C. F. J.—*Coal Lands in Northern Cariboo, B. C.*—Canadian Mng. Jnl., Apr.15,1912; p. 278; 1000 w*; 25c.

Griffith, Wm.—*The High-Grade Coals of Alaska*.—Amer. Mng. Congr., Proc., Vol. 14, 1911, p. 329-333.

Hedley, R. R.—*New Coal Fields in the Northern Interior of British Columbia*; [Read to Canadian Mng. Inst., Western branch].—Canadian Mng. Jnl., March15, 1912, p. 207; 1600 w; 25c.

Jacobs, E.—*Review of Mining and Production in British Columbia in 1911*.—See British Columbia.

Jacobs, E.—*The Coal Fields of Western Canada*.—Coal Age, May4,1912; p. 968; 1800 w; 20c.

Jacobs, E.—*Coal Mining in British Columbia*; [Review for 1911].—M. & S. P., Jan.6,1912, p. 70; 600 w; 35c. Also in Coal Age, Jan.13, p. 454; 800 w; 20c.

Joslin, F.—*The Alaskan Coal Situation*.—Amer. Mng. Congr., Proc., Vol. 14, 1911, pp. 351-362.

Leehey, M. D.—*Coal and Transportation in Alaska*; [also discusses and opposes leasing system].—Amer. Mng. Congr. Proc., Vol. 14, 1911, pp. 337-350.

Martin, G. C. and F. J. Katz.—*Geology and Coal Fields of the Lower Mantanuska Valley, Alaska*.—U. S. Geol. Survey, Bull. 500; 1912; 98 pp.*; 10c. Abstract in M. & S. P., Apr.6,1912; p. 499; 2000 w; 20c.

McEvoy, Jas.—*Report on the Brule Lake Coal Claims*; [N. Alberta Coal Syndicate].—Canadian Mng. Jnl., March1,1912, p. 155; 4500 w*; 25c.

Robertson, W. F.—*Coal Mining in British Columbia in 1911*; [Illustrated abstract from provincial report].—Coll'y Guardn., Apr.17,1912; p. 24; 3000 w*; 35c.

Wright, F. S.—*Report on the Groundhog Mountain Coal Field, Br. Columbia*.—B. C.

Mng. Exchange, April,1912; p. 12; May, p. 12; 2700 w*; 65c.

Wynne-Roberts, R. O.—*Saskatchewan Fuels and Gas*; [Lignite resources and their development; read to Regina Soc. of Arts & Sci.].—Canadian Engr., March21,1912; p. 430; 3000 w; 25c.

Canadian Mng. Inst., Western Branch.—[*Proceedings and Short Abstracts of Papers Read at 12th Annual Meeting, Vancouver, Feb., 1912*].—B. C. Mng. Exchange, Feb., 1912; p. 14; 9000 w; 45c. Also in Canadian Mng. Jnl., Apr.1, p. 235; 3500 w; 25c.

—*Bear River Coal Field*.—Brit. Columbia Mng. Exchange, April,1912; p. 17; 1000 w*; 35c.

—*British Columbia's Coal Mines*; [Review for 1911].—Canadian Engr., May 23,1912; p. 712; 1500 w; 25c.

—*Coal Mining in Alberta in 1910*; *Annual Report of the Coal Mines Branch, Alberta*.—Canadian Mng. Jnl., Feb.1,1912; p. 75; p. 93; Feb.15, p. 125; 9000 w*; 35c. Illustrated abstract in Coll'y Guardn., Apr.17, p. 26; 1000 w*; 35c.

—*Coal Mining at Queen Charlotte Islands, B. C.*—Brit. Columbia Mng., etc. Record, Oct.,1911, p. 84; 600 w; 25c.

—*Development of Alaskan Coal Fields*; [Favors commission form of administration].—Engg. Record, March16,1912; p. 282; 1000 w; 20c.

—*The Anthracite Discoveries in Northern British Columbia*.—B. C. Mng. Exchange, Dec.,1911, p. 15; 1200 w; 35c.

EASTERN CANADA

(Including Canada at large)

Denis, T. C.—*The Coal Fields of Canada*.—Canada Dept. Mines, Mines Branch Rep. No. 83; pp. 21-128*; \$1.25.

Gray, F. W.—*The Coal Trade of Nova Scotia During 1911*; *A Resumé*.—Canadian Mng. Jnl., Jan.15,1912, p. 48; 5500 w*; 25c.

McLeish, J.—*The Production of Coal and Coke in Canada in 1910*.—Canada Dept. Mines, Mines Branch Publication No. 116;

Porter, J. B., and others.—*An Investigation of the Coals of Canada, with Reference to their Economic Qualities; as Conducted at McGill University under the Authority of the Dominion Government*.—Canada Dept. Mines, Mines Branch; 6 volumes. Volume 1, 1912; Report No. 83; pp. 233; charts, plates; \$1.25; Vol. 2; p. 189*; \$1.25.

Dept. of Mines of Nova Scotia.—*Report for 1911*.—Canadian Mng. Jnl., March 15, 1912, p. 200; April 1, p. —; 2000 w*; 40c.

—*Coal Mining in Nova Scotia in 1911*.—Coll'y Guardn., Apr.17,1912; p. 27; 1500 w*; 35c.

—*The Coal Production of Canada, 1910 and 1911*; [From McLeish's official reports].—Coll'y Guardn., Apr.17,1912; p. 19; 3000 w*; tables; 35c.

—*The Coal Resources of Canada*; [From report of Canada Conservation Commission].—Coll'y Guardn., Apr.17,1912; p. 17; 6000 w*; 35c.

APPALACHIAN STATES

(Including U. S. at large)

Butler, J. E.—*Stearns Mines in Kentucky*; [Abstract; read to Kentucky Mng. Inst.].—Coal Age, Dec.23,1911, p. 341; 1500 w*; 20c. Also in Mines & Minerals, March, 1912, p. 481; 1600 w*; 35c.

†Including By-Products.

Cartlidge, O.—*Mine No. 3, Saline County Coal Co., Penn.*—*Mines & Minerals*, Feb., 1912; p. 387; 2000 w*; 35c.

Evans, A. W.—*Lookout Mountain Coal Measures*; [Tenn., Ala., Ga.]—*Mines & Minerals*, June, 1912; p. 654; 2400 w*; 35c.

Johnston, J. K.—*Characteristics of the Thick-Vein Freeport Coal*; [Read to Coal Mng. Inst. of America; abstract].—*Coal & Coke Op.*, Jan. 11, 1912, p. 20; 2000 w; 25c. Also in *Coal Trade Bull.*, Feb. 1, p. 37; 2400 w; 25c.

Jones, J. H.—*Review of Year's Coal Trade*, 1911.—*Coal Age*, Jan. 6, 1912, p. 419; 1200 w; 20c.

Laing, J.—*West Virginia Production for Year Ending June 30, 1911*; [Abstract of official report].—*Coal & Coke Op.*, Feb. 29, 1912; p. 143; 1000 w; table; 20c. Also in *Coal Trade Bull.*, March 1, p. 25; March 15, p. 27; 3000 w; table of companies; 35c.

Ludlow, Edw.—*The Smokeless-Coal Field of West Virginia*.—*Mines & Minerals*, March, 1912; p. 467; 2000 w*; 35c. Also in *Coal Trade Bull.*, May 1, p. 55; 2000 w; 25c.

Luty, B. E. V.—*The Pittsburgh District in 1911*; [Coal review].—*Coal Age*, Jan. 6, 1912, p. 413; 750 w; 20c.

Marshall, J. J.—*The Removal of Coal From the No. 2 Gas Seam in the Kanawha District*; [Reviews general mining practice; read to W. Va. Coal Mng. Inst., Dec. 1911].—*Coal Trade Bull.*, Jan. 15, 1912, p. 47; 5000 w; 25c.

Maynard, T. P.—*Portland Cement and Coal Resources of the Southern States*.—*Amer. Mng. Congr.*, 1911; *Proc.*, Vol. 14; pp. 208-213.

Parker, Edw. W.—*Coal Production in 1911*; [Preliminary estimates for the U. S.].—*Coal & Coke Op.*, Jan. 4, 1912, p. 13; 2000 w; 25c. Also in *Mng. Sci.*, Jan. 25, p. 78; 3000 w; 25c. Also in *Mining & Engg. World*, Jan. 27, p. 165; 3500 w; 25c.

Parsons, F. W.—*Mining Coal on the Virginia Railroad*; [Describes tributary coal fields in southern W. Virginia].—*Coal Age*, May 18, 1912; p. 1039; May 25, p. —; 3000 w*; 30c.

Roberts, W. D.—*Mine Developments in the Southern States*; [New coal developments in W. Va.-Va.-Kent'y district].—*Mining & Engg. World*, Apr. 13, 1912; p. 807; 1000 w; 10c.

Roderick, Jas. E.—*Report of the Dept. of Mines of Pennsylvania, 1910; Vol. I, Anthracite; Vol. II, Bituminous*.—Harrisburg, Penn., 1911; pp. 608; 983; \$1.00.

Shifflett, R. A.—*Annual Report of the Mining Department of Tennessee for 1910*.—Nashville, 1911; 155 pp; \$1.

Skaggs, W. H.—*New Field Uncovered in Alabama District*; [Coalfields north of Tuscaloosa].—*Black Diamond*, Jan. 13, 1912, p. 15; 2000 w*; 30c.

Stone, R. W.—*Coal on Dan River, N. Car.*—*U. S. Geol. Survey, Bull.* 471-B; 1912; p. 35*; 20c.

Tupper, C. A.—*The Roden Co.'s Plant in Alabama*; [Roden Coal Co. mines, Cahaba field, Bibb county].—*Coal Age*, March 30, 1912; p. 800; 4000 w*; 20c.

Wheelwright, J. H.—*Coal Development in Eastern Kentucky*; [Consolidation Coal Co. plans].—*Manfrs. Record*, Feb. 22, 1912; p. 49; 2000 w; 25c. Also in *Coal Trade Bull.*, March 15, p. 30; 2000 w; 25c.

—*Progress in Kentucky Geology*; [Coal fields].—*Mines & Minerals*, June, 1912; p. 649; 1500 w; 35c.

—*Alabama Cons. Coal & Iron Co.*—*Manfrs. Record*, Feb. 22, 1912; p. 102; 2000 w*; 65c.

—*Anthracite Stocks*; [At U. S. tidewater, annually, 1906-1911].—*Black Diamond*, Feb. 10, 1912; p. 19; 500 w; 30c.

—*Anthracite Coal Mining*; [Statistics of the industry in 1909; from Census report].—*Coal Trade Bull.*, Dec. 15, 1911, p. 47; 1200 w; 25c.

—*Bituminous Mines, Pennsylvania*, 1911; [Review of production].—*Coal Age*,

—*Coal and Coke Exports in 1911*; [From U. S.].—*Coal Age*, Jan. 6, 1912, p. 417; 1400 w; 20c.

—*Coal and Coke in 1911*; [General summary of U. S. production].—*E. & M. J.*, Jan. 6, 1912, p. 98; 1000 w; 25c.

—*Coal and Coke Production in the United States*; [By states, 1910 and 1911].—*Coal Age*, Jan. 6, 1912, p. 424; 300 w; tables; 20c.

—*Coal Industry of Alabama in 1911*.—*Coal Age*, Jan. 6, 1912, p. 405; 200 w; 20c.

—*Coal Industry in the United States During 1911*; [Review of production by states and prices].—*Coal Trade Bull.*, Jan. 2, 1912; p. 21-24, 56; 25c.

—*Electrical Equipment, D. L. & W. Mines, Pa.*—*Coal Age*, March 16, 1912, p. 742; 2100 w*; 20c. Also in *Coal & Coke Op.*, March 21, 1912, p. 190; 2100 w*; 20c.

—*Equipping a Mine to Overcome a Bad Record*; [Electrification of gaseous Harwick colliery, Cheswick, Penn.].—*Black Diamond*, Jan. 6, 1912, p. 15; p. 30; 2000 w*; 30c.

—*Pennsylvania Coal Production in 1911*; [By districts and companies].—*Coal Trade Bull.*, March 1, p. 42; March 15, p. 34, p. 46; April 1, p. 30; tables; 50c.

—*Some Coal Statistics for 1911*; [Shipments in various districts; from "Monthly Summary of Commerce & Finance"].—*Coal Age*, March 16, 1912, p. 745; 1000 w; tables; 20c.

—*Stripping Made Possible by Improved Machines*; [Practice in eastern Kentucky coal fields].—*Black Diamond*, Apr. 20, 1912; p. 20; 1500 w*; 30c.

—*The Coal & Coke Ry. of West Virginia and Its Tributary Coalfields*.—*Black Diamond*, Feb. 10, 1912; p. 20; 1200 w*; 30c.

—*West Virginia During 1911*; [Coal review; also Virginia].—*Coal Age*, Jan. 6, 1912, p. 415, p. 416; 1600 w; 20c.

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Boyle, Ed.—*The Coal Industry of Oklahoma*, 1911.—*Coal Age*, Jan. 6, 1911, p. 411; 750 w; 20c.

Garcia, J. A.—*The Dewar, Okla., Coal Field*.—*Coal Age*, Apr. 20, 1912; p. 898; 1800 w; 20c.

Harrison, J.—*The Ohio Coal Industry for 1911*.—*Coal Age*, Jan. 6, 1912, p. 410; 1200 w; 20c.

Hibbs, Wm.—*Mining the No. 8 Seam in Ohio*; [Practice on Pittsburgh seam].—*Coal Age*, May 18, 1912; p. 1036; 1500 w*; 20c.

Ijams, J. W.—*Cheap Stripping with Shovels Near Surface*; [Stripping in open-cut coal mines near Danville, Ill.].—*Black Diamond*, Jan. 27, 1912, p. 20; 1200 w*; 30c. Abstract in *M. & S. P.*, March 16, p. 410; 800 w; 20c.

Nelson, W. A.—*Lignite and Lignitic Clay in West Tennessee*.—Resources of Tenn., Apr., 1912; p. 157-160*; 35c.

Pearce, F. I.—*Indiana Coal Industry in 1911*.—Coal Age, Jan. 6, 1912, p. 407; 500 w; 20c.

Peltier, M. F.—*Mining Methods in Illinois*; [Peabody Coal Co., No. 3 mine, Marion].—Coal Age, March 16, 1912, p. 732; 2000 w*; 25c.

Phillips, Wm. B.—*Coal and Lignite in Texas in 1911*.—Coal Age, Jan. 6, 1912, p. 414; 500 w; 20c.

Snider, L. C.—*Review of Mining in the U. S. in 1911; Oklahoma*.—Mining & Engg. World, Jan. 27, 1912; p. 231; 3600 w; 25c.

Stamm, L. E.—*Coal Industry in Iowa in 1911*.—Coal Age, Jan. 6, 1912, p. 407; 1000 w; 20c.

Tupper, C. A.—*Mining of Shallow Deposits with Steam Shovels*; [Missionfield, Ill., coal mines].—Mining & Engg. World, Jan. 13, 1912; p. 59; 1500 w*; 10c.

Udden, J. A.—*Geology and Mineral Resources of the Peoria Quadrangle, Illinois*.—U. S. Geol. Surv., Bull. 506; 1912; 101 pp.*; 10c.

State Mining Board.—*Thirtieth Annual Coal Report of Illinois*; [For year ended June 30, 1911].—Springfield, 1912; 445 pp.; 50c.

—*Coal Production of Kansas, Maryland, and North Dakota, 1911*.—Coal Age, Jan. 6, 1912, p. 408; 1000 w; 20c.

—*Coal Production in Illinois by Companies for the Year Ending June 30, 1911*; [From 30th annual coal report of State Mining Board of Ill.].—Coal Trade Bull., Feb. 15, 1912; p. 35-40; tables; 25c.

—*Maple Block Coal Co., Des Moines, Iowa*; [Mine and power plant; single motor haulage system].—Electr. Mng., April, 1912; p. 29-42*; 20c.

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Bell.—*13th Annual Idaho Report*.—See under Idaho.

Calvert, W. H.—*Utah Coal Fields; A Magnificent Source of Natural Wealth*.—Salt Lake Mng. Review, Apr. 30, 1912; p. 29; 1800 w*; 25c.

Chance, H. M.—*The Cambria Coal Field in Wyoming*; [Historical data].—Coal Age, Apr. 13, 1912; p. 884; 1300 w; 20c.

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CHAPTER VII.—STRUCTURAL MATERIALS; CERAMICS;

Stone, Sands, Gravel

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See also under "Drilling and Boring" (Mechanical Cutters) for stone channelers, saws, etc.

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The Electrical Motor in Stone Yard; [In cranes, and in stone saws].—Stone Trades Jnl., June, 1912; p. 1170; 500 w*; 35c.

Lime; Cements; Concrete

CEMENT MILLS AND MILLING; KILNS; RAW MATERIALS

For Dust Problem in Mills see also under "Sanitation, etc., in Milling and Metallurgy."

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See "Pyrite and Sulphur."

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III. TECHNOLOGY

TECHNOLOGY OF MINING, MILLING OR ORE DRESSING AND METALLURGIC PRACTICE AND MACHINERY; ASSAYING AND MINEROCHEMISTRY, ECONOMIC GEOLOGY, MINING LAW AND LEGISLATION, ETC.

CHAPTER VIII.—MINE AND MINING (1)

Prospects and Prospecting

See also "Legislation" for additional references to mineral land laws, etc.

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Ore Sampling

See under Chemistry in Metallurgy and Chemistry.

Electricity in Mine, etc.

For electricity, compressed air, steam, etc., in mines and mining, milling, etc., see under "Power and Machinery."

CHAPTER IX.—MINE AND MINING (2)†

HAULAGE; HOISTING; CABLES

CABLES

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Voit, St.—*Die Verwendung der Drahtseile im Petroleum-Plunger Betrieb*; [Specifications, testing and use of steel cables for boring by the Canadian system].—*Petroleum*, Feb.21,1912; p. 537; 3500 w*; 50c.

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—, Locomotive for Sharp Curves; [Garratt engine on Tasmanian N. E. Dundas line, 2-ft. gauge].—Mines and Methods, March, 1912; p. 443; 500 w*; 20c.

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TRACK; CARS; ACCESSORIES

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SIGNALLING

See under "Lighting and Signalling."

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Hoisting

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Bertrams, Ferd.—*Die Grubenbeamtenversicherung im Ruhrkohlenbergbau und das Versicherungsgesetz für Angestellte*; [The German workmen's insurance law of Dec. 20, 1911; its bearing on the insurance of mine inspectors and officials in the Ruhr coal field].—Glückauf, March2,1912; p. 353-363; March9, pp. 399-404; 75c.

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McDonald, P. B.—*Compensation to Injured Workmen in Michigan*.—E. & M. J., March2,1912, p. 463; 800 w; 25c.

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German miner].—Bergbau, May2,1912; p. 249; 2000 w; 35c.

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Workmen's Compensation in Gt. Britain.—M. & S. P., Apr.6,1912; p. 496; 1000 w; 20c.

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CHAPTER X.—THE MILL AND MILLING.

(Including Cyaniding and Amalgamation.)

Reduction: Crushing, Grinding, etc.

STAMP MILLING

Del Mar, Alg.—*A Treatise on Practical Stamp Milling and Stamp Mill Construction*.—New York; 1911; 134 pp; 98 figs; \$2 (book).

Del Mar, A.—*Stamp Battery Cam Shafts*.—M. & S. P., Jan.13,1912; p. 113; Jan.27, p. 176; 1200 w*; 30c.

Fuller, J. P.—*Reinforced Concrete for Stamp Foundations*.—Mng. Mag., Apr.,1912; p. 278; 1000 w*; 45c.

Huntoon, L. D.—*Stamp Milling in 1911*.—E. & M. J., Jan.6,1911, p. 52; 2200 w; 25c.

Hutchinson, J. W.—*Operating Costs at the Goldfield Consol. Mill, Nev.*—M. & S. P., Jan.20,1912, p. 137-140; 1900 w; charts: 20c.

Martin, A. H.—*Heavy Stamps Find Favor at Nevada Mills*.—Mining & Engg. World, March30,1912; p. 703; 1800 w*; 10c.

MacNichol, A. W.—*Clamps for Stamp Milling*.—M. & S. P., March16,1912; p. 412; 200 w*; 20c.

Nissen, P.—*Notes on High-Duty Gravity Stamp Mills*: [Tests of heavy Nissen stamps vs. intermediate-weight stamps at City Deep mill, Witwatersrand].—Cheml. Met. & Mng. Soc. of S. Afr., Jnl., Oct., 1911, pp. 111-124*; (Discussion), Oct., p. 124-126; Nov., p. 182-187*; Dec., p. 225; Jan.,1912, p. 275-279. Reply to discussion March, p. 357-365*; 75c.

Abstract in Afr. World, Nov.4, p. 587; Nov.18, p. 76; 2000 w; 50c. Also in S. Afr. Mng. Jnl., Nov.4, p. 307; Dec.23, p. 572; 4200 w; 50c. Also in E. & M. J., Dec.23, p. 1219; 1000 w; 25c. Also in Mng. & Engg. World, Dec.30, p. 1316; 1200 w; 10c.

Smart, G. O.—*Stamp-Milling*.—See Caldecott's "Rand Metallurgic Practice," under Transvaal.

Stadler, H.—*High-Duty Gravity Stamps*; [Discussion of Nissen's paper].—S. Afr. Mng. Jnl., Dec.2,1911, p. 457; 2000 w; 35c. Also in M. & S. P., Feb.17,1912, p. 274; 2000 w; 20c. Also in E. & M. J., Feb.17, p. 354; 1200 w; 25c.

Thomas, J. E.—*Sorting and Breaking*.—See Caldecott's "Rand Metallurgic Practice," under Transvaal.

—*A Chilled-Iron Stamp Shoe*.—E. & M. J., March30,1912; p. 640; 600 w*; 25c.

—*Changes in the Design of Rand Stamps*.—E. & M. J., May25,1912; p. 1032; 300 w; 25c.

—*Canon for Shooting Out Keys*; [of driving pulley to stamp cam-shaft].—E. & M. J., Apr.27,1912; p. 834; 300 w*; 25c.

—*Reduction Plants in the State of Nevada*; [Directory of mills with crushing equipment].—Mining & Engg. World, Feb. 17,1912; p. 408; 500 w; tables; 10c. Also in Salt Lake Mng. Rev., Jan.15, p. 27; 1000 w; table; 25c.

—*The Cons. Langlaagte New Plant*; [Crusher station; open-front mortar boxes].—S. Afr. Mng. Jnl., Apr.27,1912; p. 306; 400 w*; 35c.

—*The Crown Mines' Crusher Stations*.—S. Afr. Mng. Jnl., Apr.13,1912; p. 233; 750 w*; 35c.

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Allen, A. W.—*Pebble Efficiency in Tube Milling*.—M. & S. P., Jan.6,1912, p. 19; 1000 w; 35c.

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Abstract of paper in M. & S. P., Sept. 23, p. 383; 3500 w; 20c. Also in S. Afr. Mng. Jnl., Sept.23, p. 76; Oct. 7, Oct. 14, p. 186; Oct.21, p. 229; Oct.28, p. 259; 10,000 w; 95c. Also in Mng. Sci., Oct.5' p. 313; 650 w; 20c. Also in S. Afr. Engg., Oct., p. 64, 68; 2500 w*; 35c.

von Bernewitz, M. W.—*Ball-Mill Practice*; [Notes on various phases].—Mng. Mag., Jan.,1912, p. 59; 300 w; 45c.

Brown, F. C.—*Tube Mill Practice and Liners*.—M. & S. P., Feb.3,1912; p. 206; 1800 w*; 20c. Abstract in Mining & Engg. World, March23, p. 665; 1200 w*; 10c.

Dowling, W. R.—*Table of Pebble Loads of Different Depths in a Tube Mill 22 ft. in Length and 5 ft. in Internal Diameter*.—Cheml. Met. & Mng. Soc. of S. Afr., Jnl.; Jan.,1912; p. 287; 200 w; table; 90c.

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Hanson, H.—*Development of Fine Grinding in Connection with Gold Ore Treatment*; [Read to Canadn. Mng. Inst., Porcupine branch].—Canadian Mng. Jnl., March 1,1912; p. 166; 1200 w; 25c. Also in Mex. Mng. Jnl., April, p. 18; 1200 w; 25c.

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Meade, R. K.—*Portland Cement; Its Composition, Raw Materials, Manufacture, Testing and Analysis*.—Easton, Penn.; 1911 (2d edition); 512 pp*; \$4.50 (book).

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Stadler, H.—*The New Metallurgy*; [Discusses fine grinding and extraction and working costs; alleges excessive refinement in practice].—Mines & Minerals, July, 1912; p. 739; 3500 w; tables; 30c. Also in M. & S. P., July 20, p. 78; 4000 w*; 20c.

Sturtevant, L. H.—*Phosphate Grinding*; [Sturtevant ring-rolls].—Amer. Fertilizer, 1800 w*; 35c. Also in Rock Products, June, p. 39; 2000 w; 30c. Also in Cement, May, p. 351; 2000 w*; 30c.

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Amalgamation Tables for Huntington Mills.—E. & M. J., June 1, 1912; p. 1078; 1000 w*; 25c.

Die Gigantmühle; [Bradley giant mills in cement industry in America and Europe].—Ton-Industrie Ztg., Feb. 3, 1912; p. 186; 400 w; 30c.

El molino tubular; [The tube mill in gold metallurgy].—Mex. Mng. Jnl., March, 1912; p. 57; 3200 w; 25c.

Grinding Analyses and Their Application; [Relation between energy units and mesh aperture].—E. & M. J., Apr. 6, 1912; p. 681; 1000 w; 25c.

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Browne, R. S.—*Progress in Cyano-Metallurgy in 1911*; [I: Crushing and grinding; II: Agitation, precipitation, filtration].—Mining & Engg. World, Feb. 3, 1912; p. 287; Feb. 10, p. 348; 8000 w; 20c.

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Canda, F. M.—*The Canda Crusher Plate*; [Special bar design for "Adamantine" steel jaw plates].—E. & M. J., May 18, 1912; p. 998; 250 w*; 25c.

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Poole, W.—*The Treatment of Broken Hill Ores*; [I: Grinding and Concentration; read to Sydney Univ. Engg. Soc.].—Mines & Minerals, Nov., 1911, p. 227; 7000 w*; 35c.

Rice, C. T.—*Feeding Boulders to Crushers*; [at Calumet & Hecla mines].—E. & M. J., Jan. 20, 1912, p. 159; 1200 w*; 25c.

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See "Transportation; Storage; Handling," in last chapter. The papers describing individual ore-dressing and coal-dressing plants also contain important contributions on this subject.

CHAPTER XI.—METALLURGY AND CHEMISTRY.

Electrometallurgy; Electrochemistry

ELECTROMAGNETIC AND ELECTROSTATIC ORE-DRESSING

See concentration, Chapter 10.

ELECTROLYTIC METAL REFINING

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ELECTRO-CYANIDING

See under "Cyaniding."

ELECTROSIDERURGY

See under "Iron & Steels," chapter 4.

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For aluminum see under "Electrolytic Metal Refining." See also under Aluminum.

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CHEMISTRY OF CYANIDING

See under "Cyanidation."

SIDERURGIC CHEMISTRY

See under "Iron and Steels."

CHAPTER XII.—POWER AND MACHINERY.

Miscellaneous; General

Binder, L.—*Ueber Wärmeübergang auf ruhige oder bewegte Luft sowie Lüftung und Kühlung elektrischer Maschinen*; [Heat transmission and radiation in stationary and mobile atmospheres, and the ventilation and cooling of electrical machinery].—Halle, 1912; 116 pp.; 45 figs; \$2 (book).

Brislee, F. J.—*An Introduction to the Study of Fuel* [and technical application].—London, 1912; pp. 258; 61 figs.; \$2.50; (book).

Cole, E. L.—*Faulty Power Plant Design*.—Coal Age, March, 1912; p. 704; 1000 w*; 20c.

Contzen, H.—*Messgeräte für Druck und Geschwindigkeit von Gasen und Dämpfen*; [Meters for pressure and speed of gases and steam; supplementary to E. Stach's paper of 1911].—Stahl & Eisen, Apr. 4, 1912; p. 573; 1200 w*; 75c.

Josse, E.—*Neuere Kraftanlagen*; [Newer developments in Germany in Power Plants and Power Production].—Munich & Berlin, 1911 (2d edition); 149 pp*; \$2.00 (book).

Review by Prof. L. S. Marks in Engg. News, Jan. 18, 1912; p. 131; 1300 w; 25c.

Lane, H. M.—*First Aid to Mining Machinery*; VII; [Methods for large or heavy castings, such as lead kettles].—E. & M. J., Feb. 10, 1912; p. 321; 4500 w*; 25c.

Lane, H. M.—*First Aid to Mining Machinery*; VI: *Making Molds for Hoppers*.—E. & M. J., Jan. 27; p. 224; 2400 w*; 25c.

Leprince-Ringuet, F.—*Rapport de Mission en Angleterre et en Allemagne sur la Distribution de l'Énergie dans les Régions Houillères*; [Report of the French commission to England and Germany on the Distribution of Power in Collieries].—Annales d. Mines (Paris), Oct., 1911; 112 pp.*; \$1.50.

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Royds, R.—*The Testing of Motive Power Engines; Including Steam Engines and Turbines, Locomotives, Boilers, Condensers, Internal Combustion Engines, Gas Producers, Refrigerators, Air Compressors, Fans, Pumps, etc.*—New York, 1911; 396 pp*; \$4.00 (book).

Tupper, C. A.—*Ore and Coal Mining Machinery*; [Similarity, and interdependence for development].—Mines & Minerals, March, 1912; p. 454; 1800 w; 35c.

British Science Guild.—*Natural Sources of Energy*; [Symposium by Sir B. Redwood on Petroleum; Sir Wm. Ramsay on heat of Atomic Transformation; R. J. Strutt, Internal Heat of the Earth; G. T. Bellby, Coal Resources of Gt. Britain; V. B. Lewes, Economic Carbonization of coal; D. Clerk, Combustion Engines; Sir Chas. Parsons, Efficiency in Steam Engines; etc.; abstract].—Coll'y Guard., Apr. 4, 1912; p. 679; p. 695; 10,000 w; 35c. Also abstracted and reviewed in Engng., March 29, p. 424; 1600 w; 35c. Also in El. Rev. (London), Apr. 5, p. 520; 1200 w; 35c.

—*Hauling Heavy Machinery*.—E. & M. J., Jan. 20, 1912; p. 157; 600 w; 25c.

—*Quick Repairs to Machines to Avoid Suspension*. [Machine shop and storehouse of O'Gara Coal Co.].—Black Diamond, March 9, 1912; p. 16; 2000 w; 30c.

LUBRICANTS; GEARS; TRANSMISSION

Caldwell, J. M.—*Lubricants and Lubrica-*

tion; [Read to British Instn. of Mechl. Engrs., Calcutta branch].—Indian & Eastn. Engr., April, 1912; p. 145; May, pp. —; 4000 w; 75c.

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Derby, A. E.—*Care of Belting in the Factory*.—Power, Jan. 9, 1912; p. 42; 1600 w*; 20c.

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Howarth, R.—*Everyday Calculations* [for speed and weight of flywheels].—Practl. Engr., May 15, 1912; p. 516; 500 w*; 20c.

Jackson, H. D.—*Possible Power Economies*; [Central plant for waste coal].—Coal Age, March 9, 1912; p. 707; 1000 w; 20c.

Jeffrey, R.—*Lubricants, Their Properties and Uses*.—Power, Feb. 6, 1912; p. 189; 1800 w; 20c.

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Silberberg, L.—*Entwicklung und Ausichten des Stahlbandantriebes*; [Development and present status of steel-belt drive].—Ver. Deu. Ingr., Zts., Oct. 21, 1911, p. 1768; 5000 w*; 50c.

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Electricity in Mine, Mill, etc.

See also Electrosiderurgy, Chapter 4; also Electrometallurgy, Chapter 11.

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- Kesselring, F.—*Die Rentabilität von Ueberlandzentralen*; [Financial profitability of central power stations for long distance transmission].—Elektrotechnik & Masch. Bau, Jan.21,1912, p. 49-55* 35c.
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- Rhodes, Geo. I.—*A Method of Studying Power Costs with Reference to the Load Curve and Overload Economies*.—Amer. Inst. Electr. Engrs., Proc., Feb.1911; p. 129-149*; \$1.15.
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CHAPTER XIII.—MISCELLANEOUS TECHNOLOGY.

(Comprising Wastes Disposition; Transportation, Storage and Handling; Geology; Law; Financial; Historical; Educational, Filing and Indexing.)

Waste Disposition: Slags, Tailings, Fines, Fumes, Sludge, Waters, etc.

FUMES; FLUE-DUST; FURNACE-GAS; SLAG

See also under "Thermic Metallurgy"; also under "Combustion Engines"; see also Slag Fertilizers and Slag Cements, Chapter 7.

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AUTHORS' INDEX.

A

Aarnio, B. 177
 Abbott, H. 135
 Abbott, R. R. 91
 Abeking, K. 295
 Abell, O. J. 82
 Abels, C. 290, 293
 Ablett, C. A. 93, 281
 Abrams, D. A. 156
 Abrams, H. T. 286
 Acheson, E. G. 232
 Aechsharunoff, N. 154
 Aechshunow, N. 144, 154, 198
 Ackermann, E. 6, 39, 111
 Ackerman, H. F. 14, 63
 Ackley, C. S. 129, 271, 295
 Adams, F. D. 26, 162, 303
 Adams, G. F. 42, 126
 Adams, G. I. 44, 67, 126
 Adams, H. 259
 Adams, L. H. 258
 Adams, O. G. 32, 108
 Adamson, L. F. 14
 Addicks, B. 315
 Affelder, W. L. 284
 Aguilion, L. 39, 310
 Ahrens, A. S. 93, 281
 Aikens, W. 12, 54
 Aitchison, L. 85
 Ajam, M. 310
 Akin, A. D. 31, 56, 66
 Albrecht, 201, 301
 Aldcorn, T. 284
 Alder, A. 18, 108, 266
 Alderson, V. C. 247, 262, 316
 Aldrich, H. W. 135
 Aldrich, T. H. 246
 Alexander, J. 288
 Allen, A. W. 47
 69, 70, 72, 203, 212, 238
 240, 243, 244, 245, 247, 286
 Allen, C. 210
 Allen, C. A. 197
 Allen, E. T. 178, 307
 Allen, H. 89
 Allen, H. B. 87
 Allen, I. C. 150
 Allerton, D. 209
 Alley, F. C. 29, 56
 Alling, J. H. 243
 Allingham, G. C. 271
 Althouse, W. D. 11, 129, 295
 Alvarez, A. C. 157
 Ambrose, E. 194
 Ammermann, 149
 Amptferer 304
 Amsler, W. O. 136
 Anderson, A. A. 18, 19, 99, 265
 Anderson, A. E. 195
 Anderson, A. O. 150
 Anderson, F. M. 4
 Anderson, G. E. 4
 41, 44, 79, 82, 126
 Anderson, J. H. 53
 Anderson, J. R. 51
 Anderson, R. 51
 Andree, K. 114, 165
 Andrews, H. O. 35
 Angelini, V. 77
 Apfel, O. 166
 Appelbaum, M. E. 61
 Aranaz, D. R. 193
 Archbutt, L. 86
 Archbutt, S. L. 50
 Archibald, E. H. 131
 Arden, E. 139, 296
 Argall, P. H. 6, 72, 106, 243, 246
 Armstrong, L. O. 24
 Arly, W. 206
 Armstrong, F. H. 279
 Arndt, K. 84
 Arnold, J. O. 84, 85, 86
 Arnold, R. 32, 141, 300
 Arthur, E. P. 184
 Arthur, W. 85, 117
 Artingstall, Wm. 199, 201

Asch, D. 155, 160, 180
 Asch, W. 155, 160, 180
 Asehan, O. 176
 Ashcroft, E. A. 98, 105, 116, 262
 Ashley, G. H. 19, 51, 64, 165
 Ashworth, J. 206, 228, 230
 Askling, C. W. 282
 Assaclevf, V. P. 23
 45, 58, 249, 254
 Aston, F. J. 127, 184, 194, 200, 249, 215
 Aston, J. 85, 87
 Aston, R. G. 19, 146
 Atherton, L. M. 61
 Atwater, C. G. 138
 Auger 211
 Aurlac, A. D. 81
 Austin, K. 131
 Austin, L. S. 98, 105, 253
 Austin, W. L. 58
 73, 105, 213, 243, 249, 262
 Auzles, J. A. A. 80, 178, 295
 Avalos, C. G. 33, 77, 82
 Avery, C. M. 24, 58, 260, 293, 299
 Ayres, L. E. 273
 Azzollno, A. 178

B

Baak, B. 123, 135, 175
 Babb, J. C. 206
 Babbitt, E. C. 6, 113
 Babson, R. W. 133
 Bachran, Fr. 110
 Bacon, C. J. 135, 295
 Bader 199
 Badermann, 117, 142, 172
 Baelz, W. 26, 65, 305
 Baer 150, 282
 Bahney, L. W. 245
 Bailey, B. F. 276
 Bailey, E. G. 131, 269
 Bailey, T. F. 93
 Baln, H. F. 10, 22, 43, 113
 114, 126, 133, 302, 304, 307
 Bainbridge, G. H. 184
 Baird, D. 215
 Baird, S. P. 184
 Bairsto, G. E. 51, 249
 Baker, C. L. 4
 Baker, D. 90, 257
 Baker, E. F. 273
 Baker, E. L. 168
 Baker, H. D. 47, 170
 Baker, J. B. 275
 Baldwin, A. T. 131
 Baldwin, G. E. 2, 3, 3
 Ball, H. A. 28, 65
 Ball, H. S. 70, 238
 Ball, L. C. 47, 48, 99, 109, 126
 Ball, S. H. 39, 57, 169
 Ballagh, C. 4, 190
 Ballat, B. W. 11
 Bamberger, C. G. 20, 54, 200
 Bancroft, G. J. 245, 269
 Bancroft, H. 21, 100
 Bancroft, W. D. 250
 Bannister, C. O. 98, 261
 Bano, L. 146, 282
 Bansen, H. 190
 Baradue-Miller, L. 84
 Baragwanath, J. G. 33, 66, 305
 Barbour, P. E. 202, 259, 277
 Bardeen, H. A. 190, 279
 Barker, P. 132, 135
 Barker, W. H. 39
 Barlow, A. E. 26, 162
 Barndt, V. 14, 177
 Barnes, H. B. 279
 Barnes, J. J. 219, 277
 Barr, J. A. 19, 166
 Barratt, J. O. W. 250
 Barrett, F. P. 174
 Barrie, G. 32, 67

Barss, W. R. 102
 Barta, L. 164
 Barth, O. 51, 54, 98, 100, 261
 Barthélemy, L. 194
 Bartlett, C. O. 236
 Bärtling, R. 124
 Bartonec, F. 124, 302
 Bartoszewicz, S. 142
 Barus, C. 258
 Bassett, W. H. 50, 116, 254
 Bastin, E. S. 1, 13, 42, 171
 Bateman, A. M. 110, 308
 Bateman, G. C. 183, 184, 189, 284
 Bates, P. H. 79, 154
 Bauer, K. 2, 7, 230
 Bauer, O. 85, 269
 Baumann, K. 271, 289
 Baumann, R. 52
 Baumgartner, H. W. 153, 158, 171
 Baumgartner, K. 300
 Baumstark 198
 Baur, C. H. von 93
 Baxter, C. H. 11, 75, 205
 Bayer, L. 212, 221
 Bayet, A. 102
 Bayley, W. S. 17, 76
 Bayliss, R. T. 30, 66, 140
 Beach, C. S. 22, 223
 221
 Beard, J. T. 134, 207, 224, 234, 310
 Beardsley, S. 192
 Beck, K. 175, 180, 308
 Beck, R. 304
 Becker, A. 144, 150
 Beckerts, H. 264
 Beissel 212, 233
 Bekler, E. 182, 250
 Belalew, N. T. 85, 87
 Bell, C. F. 185
 Bell, Geo. 28, 120
 Bell, Sir H. 88, 133, 263, 317
 Bell, H. T. M. 42
 Bell, R. N. 9, 103, 186, 247
 Bell, W. T. 17, 149
 Below, von 273
 Bement, A. 9, 128, 130, 273
 Beneke, Alb. 89, 295
 Benfey, G. 162, 180, 252, 257
 Bengough, G. D. 50
 Benner, R. C. 73, 105
 226, 233, 252, 253, 257, 265
 Bennett, B. W. 199, 205
 Bennett, C. W. 58, 249, 250, 277
 Bentley, J. L. 86, 87
 Berge, A. 175, 180
 Bergeat, A. 31, 62, 303
 Berger, P. 290
 Bergeron, L. 212
 Bergner, H. 282
 Bergquist, J. G. 153, 231
 Bergwald, F. 165
 Berkhout, J. D. 196
 Berl, E. 264
 Bernewitz, M. W. von 49, 69, 70, 72, 73, 166
 238, 246, 246, 253, 257
 Berry, H. M. 16, 55, 107, 172
 Berthelot, D. 180, 252
 Bertrams, F. 236
 Best, J. W. 212
 Bestwick, R. 215
 Beswick, W. 150
 Bethman, H. 204
 Bettel, Wm. 245
 Beutner, R. 250
 Beyer, D. S. 88, 231
 Beyer, S. W. 10, 159
 Beyer 171, 181, 302
 Beyschlag, F. 75, 144, 201, 304
 Bianchi, G. 104
 Bidtel, E. 169, 267
 Bled 154
 Bigham, G. W. 16, 113
 Bikoß 283

MINING WORLD INDEX OF CURRENT LITERATURE.

Billon-Daguerre	180, 252	Brackenbury, C.	203, 277	Burchartz, H.	154, 158, 159
Binda, J. L.	53, 178	Brackenbusch, L.	152	Burgess, C. K.	258
Binder, O.	149	Bradford, Wm.	48, 60	Bürkin, E.	182, 250
Binn, C. F.	271, 279	Brady, A. C.	29, 30, 56, 66, 104, 113	Burke, U. W.	137, 151
Bird, V. E.	135	Brady, F. W.	17, 224	Burkhardt, E. D.	226
Birdwood, G.	170	Braceke	307	Burley, G. W.	171
Birkeland, K.	107, 307	Brame, J. S. S.	196	Burnham, N. H.	212, 314
Bishop, G. C.	162	Brandenberg	184	Burns, A. W.	48, 58, 60
Bishop, J. C.	156	Branner, J. C.	32, 169	Burns, F.	17
Bitta	273, 310	Brasseur	266	Burr, F. L.	11, 75, 200, 209
Bixby, M.	20, 111, 112, 170	Braungard, K.	288	Burrell, G. A.	17
Black, G. J. F.	221	Bräunlich, Fr.	131, 138	149, 150, 205, 227, 230, 268	
Black, J.	221	Bravetta, E.	196	Burroughs, W. G.	70, 243
Blackburn, W.	191	Brearley, H.	89	Burrows, A. G.	26, 65, 305
Blackett, W. C.	228	Brealy, W. H.	195	Burrows, G. B.	275
Blackie, A.	180, 257	Brechignac, J.	213, 234, 314	Burt, R. O.	217
Blackmore,	75, 107, 182, 302	Brenckridge, L. P.	132, 287	Burton, Wm.	40, 161, 317
Blake, M.	40	Breen, L. A.	1, 74, 103, 139	Busey, F. L.	207
Blanchard, A. H.	165	Breger, C. L.	14, 148, 177, 306	Buskett, E. W.	13, 97, 98, 174, 240, 254
Blanch, E.	176	Breithaupt	184	Busse, C. F.	258, 288
Blandow, M.	190	Breitwieser, J. E.	144	Bustamante, M.	304
Blanquier, J.	178	Bressanin, G.	162	Butler, B. S.	1, 3, 5
Blasberg, E.	124	Bretherton, S. E.	58, 254	12, 14, 20, 61, 62, 177, 255	
Blatchley, R. S.	9, 141	Bretznitz, A.	180	Butler, E.	146, 258
Blau, E.	203, 215	Brewer, W. M.	2, 24, 56, 64	Butler, G. M.	7, 63, 170
217, 219, 272, 277, 283, 289		Breyre, Ad.	90, 225, 231	Butler, J. E.	10, 120, 222
Blauhorn, J.	142, 310	Bridges, J. H.	9, 179	Bütow	128
Blum	187	Briggs, H.		137, 216, 277, 286, 288, 295	
Bleeker, W. F.	115, 250, 260	133, 185, 211, 227, 231, 314		Butt, T. P. E.	37, 272
Bleulinger, A. V.	257, 287	Bright, G.	134, 217, 272, 277	Byrne, G.	21, 141
Bloch, W. E.	35, 305	Brightonhouse, H.	133		
Bliss, J. A.	16	Brillouin, A.	273		
Bloclley, E.	39	Brinsmade, R. B.	200, 210, 214, 313		
Blome, H.	91, 168, 260	Brislee, F. J.	52		
Blottere, R. de.	162, 257	132, 135, 146, 150, 258, 271			
Blount, B.	155	Bristol, J. J.	184, 200		
Bülmel	212, 312, 314	Bromley, C. H.	282		
Blumenfeld, B.	173	Broniewski, W.	258, 263		
Boag, F. A.	222, 233	Brook, H. J.	21, 223		
Bock, Fr.	225	Brookes, L. E.	282		
Bock, J. C.	265	Brooks, A. H.	1, 2, 64, 120, 304		
Bock, O.	160	Brooks, C. J.	42, 73, 253		
Böckh, H. von.	149, 223, 306	Brocks, N. P.	227		
Boddington, H. D.	29, 104	Broome, G. H.	48, 132, 312		
Bodenstein, M.	258	Broughton, H. H.	281, 298		
Boecker, G.	54	Brown, A. S.	34, 39		
Boerick, W. F.	22, 197	Brown, F. C.	14, 47, 69, 70, 106, 238		
Boesel, R. C.	172	Brown, G. C.	4, 34, 39		
Boege, W. S.	134	Brown, H. S.	191, 194, 200		
Böhm, C.	107, 302	Brown, J. C.	42, 67, 183, 269		
Bolleau, J. W.	17, 135, 313	Brown, J. F. K.	38, 125		
Bolin, G. H.	212, 221	Brown, J. L. R.	105, 249		
Bolls, A.	60, 266	Brown, L. P.	9, 166		
Bollenbach, H.	161	Brown, M. 43, 46, 130, 133, 221			
Bolling, R. C.	231, 233	Brown, S. H.	152, 156, 241		
Bolton, R. P.	131	Brown, T. A.	7, 63		
Bond, J.	3, 54, 232	Browne, D. H.	26, 58, 100, 254		
Bondel	135, 287, 295	Browne, R. S.	70, 239, 244, 247, 317		
Bone, W.	257, 258, 287	Brownlee, A. G.	7, 98, 262		
Bonikowsky	77, 114, 124	Bruce, J. L.	13, 97, 114, 239, 240, 248		
Bonillas, Y. S.		Bruchausen	198		
29, 30, 66, 76, 104, 306, 308		Bruhl, S.	77		
Bonner, A. H.	288	Bruner, L.	182, 250		
Bonnerot, S.	92	Bruni, G.	262, 302		
Bonney, W. L.	30, 178, 180	Brunton, D. W.	199		
Booker, R. G.	8, 152	Bryant, F. C.	13, 114, 240		
Booth, W. H.	143, 146	Bryden, C. L.	58, 98, 116, 261		
Borchers	52, 115, 251	Bryson, T.	205		
Borck, H.	267	Ruchan, Wm.	288		
Bordewick, H.	110	Bucher, W.	137, 146, 282		
Borghesan, C. E.	200	Bucherer, M. T.	174		
Born, A.	138, 150	Bucherer, L.	210		
Borrowman, G.	156	Buckland, A. C.	47		
Bos, A. W.	297	Buckley, E. R.	4, 10, 13, 14		
Bosqui, D.	244, 245	63, 114, 161, 305, 307, 313			
Boss, M. P.	240	Buckner, N.	273		
Bosustow, A.	49	Budrow, L. R.	30, 71, 106, 240		
Boswell, S.	288	Buehler, H. A.	302		
Botsford, H. L.	212, 217	Buell, D. C.	132		
Bougault, P.	273, 291, 310	Buffet, E. P.	205		
Rowen, J. D.	29	Buffum, F. D.	217		
Bowen, M.	253	Buge, G.	102, 172		
Bowen, N. L.	180, 303	Bullems, D. K.	85, 86		
Bowie, C. P.	4, 144, 267	Bullen, A. T.	275		
Bowler, W. H.	168	Bullock, S.	290		
Bowman, I.	190	Bulman, H. F.	226, 232		
Bowser, L. T.	268	Bunting, D.	127, 209		
Boyce, W. A.	145, 297	Burchard, E. F.	152, 155		
Boyle, A. C.	22				
Boyle, Ed.	16, 121				
Boyle, J. J.	85				
Boyle, H. E.	153				

C

Cabell, R. E.	148, 312
Cadman, J.	225
Caetani, G.	240
Cain, J. R.	85, 112, 266
Calame	155
Caldecott, W. A.	37, 72, 243
Calderwood, J. M.	38, 57
Caldwell, G. S.	42
Caldwell, G. V.	126
Caldwell, J. M.	271
Callan, J.	145
Catmel, A.	95
Calvert, W. H.	20, 122, 132
Calvi, G.	77
Cambler, R.	123
Camerana, E.	143
Cameron, F. K.	106, 168, 177
Cameron, W. H.	231, 254
Camp, C. L.	210
Campbell, D. F.	93
Campbell, L. J.	86
Campbell, W.	87
Campredon, L.	40, 78, 84, 98
Camsell, C.	25, 169
Canaris, C.	91
Canda, F. M.	239
Canille, J.	226
Capacci, C.	78
Capilla, A.	30, 104, 308
Capito	43, 143
Caracristi, C. F.	170
Carl, P. H.	7, 112
Carlson, C. A.	229, 280
Carmichael, H. G.	316
Carol, P.	40, 78
Carp, P. P.	145
Carpenter, A. H.	14, 54
Carpenter, C. A.	203
Carpenter, H. C. H.	50, 254
Carpenter, R. C.	155, 290
Carpln, C.	250
Carr, W. M.	90
Carrier, W. H.	207
Carson, E. W.	3
Carter, H. A.	43, 67, 99
Carter, T. L.	29, 31, 66, 105
Cartiaux, J.	153, 155, 260
Cartledge, O.	17, 121, 197, 217
Cartwright, F. K.	211, 227
Casares, J.	22, 180
Casares, W. H.	228
Castilla, H. C.	49, 190
Castle, W.	47, 144
Catani, R.	78, 93
Cauldwell, F. W.	45, 57, 99
Cayeux, L.	11, 75, 308
Cazes, E.	52, 181

MINING WORLD INDEX OF CURRENT LITERATURE.

Cerdán, A.	107	Conwell, E. L.	156	Davidson, R. N.	58, 254, 281
Cesaris, P. de.	51, 109	Cool, W.	297	Davidson, W. A.	212, 234
Chadwick, F. D.	9, 127	Coolidge, W. D.	100, 111	Davies, H.	196
Chalkley, A. P.	253	Coon, J. M.	102	Davies, J.	123
Chamberlain, T. C.	303	Cooney, M. J.	162	Davies, M. J.	215
Chamberlin, A. M.	39, 108	Coons, A. T.	1, 17, 21, 152	Davis, C. A.	267
Chamberlin, R. T.	207, 223, 227	Cooper, B. A. M.	275	Davis, C. H.	5, 63
Champlly, R.	137, 252	Cooper, G. S.	188	Davis, F. H.	290
Chance, E. M.	207, 226	Cooper, H. L.	273	Davis, J.	183, 300
Chance, H. M.	22, 122, 127, 308	Cope, W. C.	194	Davis, G. J.	204, 286
Chapman, A. C.	52	Copeland, D.	247, 316	Davis, N. B.	27, 65, 305
Chapman, C. M.	152, 156	Copenharve, C.	14, 54, 202, 294	Davis, R. S.	84, 85, 111, 286
Chapman, T.	17, 113	Copperthwaite, W. C.	199, 286	Day, A. L.	258
Chappell, C.	86	Corkill, E. T.	26, 224	Day, D. T.	1
Charis, G. H.	86	Corleis, E.	86, 260	Day, P. C.	17, 22, 139, 147, 166
Charlton, T.	212	Cornet, F. C.	21, 224	Dean, S.	194, 206, 208, 226
Charpy, G.	92	Cortelyou, G. B.	135	De Blois, W. H.	195
Chase, C. A.	234	Cosgro, J. P.	130	Deboucq, E.	192
Chase, T.	61, 266	Coste, E.	148, 306	Dede, L.	172, 267
Chatelier; see Le Chatelier		Coste, J. H.	135, 150, 258	Defty, W. E.	3, 63
Chauvenet, R.	260, 316	Cottrell, F. G.	58, 280, 293	Degenhardt, W. R.	294
Cheney, H. W.	219, 277	Coulson, R. H.	224, 231	De Hart, W. H.	199
Chilton, J.	35, 208, 224	Coulston, P. B.	223	Dehase, E.	259
Chorlton, A. E.	137, 203, 220, 283	Couthard, R. W.	24, 202	Deinlein, E.	85, 289
Christensen, A. O.	184, 285	Courlot, H.	210, 223, 227, 280	Déjardin, L.	98, 261
Christie, A. G.	289	Courtagne, G.	52, 173, 252	Delamater, G. R.	128, 241
Church, S. B.	209	Coventry, T.	48	Delbarre, F.	85, 112, 266
Ciampi, A.	78	Cowper, H. A.	49, 126	Del Mar, A.	5, 63, 70, 238, 240, 300
Cirkel, F.	28, 45	Cox, J. R.	240	Delmer, Al.	81, 114, 123, 231, 288
49, 53, 65, 163, 171, 188		Cox, S. H.	184	Demarest, D. J.	85, 112
Clapp, C. H.	25, 120	Coy, B. G.	199	Denby, C.	164
Clark, C. M.	48, 132, 312	Cozzens, H. A.	203	Deus, T. C.	24, 28, 120, 131, 163, 269
Clark, D.	46, 58, 69	Craig, E. H. C.	142	Denison, P. N.	195, 230
72, 73, 98, 105, 109, 111		Cramer, H.	134, 183, 190	Dennington, A. R.	185
114, 186, 214, 247, 248, 264		Crane, J. B.	130, 281, 298	Dennis, F. J.	183, 187, 269
Clark, H. H.	185, 279	Crane, W. R.	205, 228	Denny, G. A.	29, 70, 105, 240, 243
Clark, S. M.	132, 287	Cranston, R. E.	5, 186	Denny, H. S.	314
Clark, W. A.	11, 79, 297	Crawford, R.	225	Derby, A. E.	169, 306
Clark, W. B.	21	Crawley, E. W.	81	Derleth, C.	157
Clarkson, S. S.	204	Creclius, L. P.	130	Desenfans, G.	209, 221
Claussen, R.	150	Green, J.	203, 266	Dessalles, L.	218
Clement, M.	312	Cretin, J.	222	Desserre, O.	138
Clements, C. H.	17	Crichton, C.	246	Desszenyi, J.	211
Clemons, M. J.	21, 223, 234	Crisfield, J. A. P.	131, 287	Dettmar, G.	282
Clerc, F. L.	7, 114, 116, 240, 254, 261	Crissey, C. P.	203	Deustua, R. A.	34, 141
Clercq, H. de.	78	Croissant, H.	150	Deutsch, F. P.	175, 310
Clifford, J. O.	15, 54, 112	Crookes, Sir W.	101, 253	Dewey, F. P.	74, 101, 177, 243, 265
Clifford, W.	211	Cross, W.	23, 177, 309	Dianourt, J.	198
Clough, F. H.	281	Crosse, A. F.	246	Dichmann, C.	258
Clowes, F.	264	Crossley, A. W.	173, 252	Dieckmann, G. F.	157
Cochran, J.	157	Croxler, H. W.	275	Dieckrich, H. W.	39, 57, 189
Cochrane, N. D.	49	Crudo, E.	269	Diehl, A. N.	90
Codesido, B. J.	173, 252	Cuadra, B. de la.	226	Diener, F.	105, 175, 254
Coghlin, W. H.	3	Cubillo, L.	87	Diesel, R.	147, 283
29, 75, 106, 107, 245, 308		Cullen, Wm.	288	Dietrich, G. H.	215, 224
Cohen, E.	53, 109, 262	Cunliffe, J.	206	Dietz, C. F.	248
Cohen, J. B.	246	Cunningham, B.	180	Dietz, H.	14, 101, 106, 264
Cohen, L.	246	Cunningham, E.	157	Dietz, J. S.	2, 16, 21, 163, 182
Cohn, J. I.	29, 66	Cunningham, J. O.	289	Dinsmoor, A.	9, 133, 234
Coldwell, O. B.	273, 291	Cunningham, N.	243	Dinsmore, C. A.	3, 5
Cole, A. A.	26, 65, 103, 246, 248	Cunningham, W. H.	207, 228	Dittler, E.	18, 59, 93, 98, 140, 254
Cole, D.	3, 54	Curie, Mme. P.	102	Dittmann, E.	252, 302
Cole, D. S.	277	Curran, T. F. V.	7, 15, 112	Dive, K.	40
Cole, E. L.	17	Curtis, B.	198, 202	Dixon, A. E.	162, 257
128, 133, 234, 239, 240, 271		Curtiss,	212, 221	Dixon, C.	21, 76, 188
Cole, G. C.	28, 64	Cushing, G. A.	79	Dobbelstein, O.	128, 137, 138, 173, 195, 216
Coleman, J. B.	264	Cushing, G. H.	11	230, 277, 280, 286, 288, 295	
Colles, G. W.	185	Cushman, A. S.	86	Dobbs, W. S.	27, 65
Collins, C. A.	232	Cutler, H. C.	14, 63	Dobson, E.	159
Collins, C. P.	184	Czakó, E.	149, 306	Dodge, W. R.	7, 72, 246
Collins, F. W.	221	Czaplinski, Dr.	228	Dodson, W. D. B.	42
Collins, G. E.	7	Czelja	281	Doederlein	290
Collins, H. E.	288			Doelter, C.	180
Collins, H. F.	178			Doepf,	283
Collins, J. H.	57, 108, 111, 162, 305			Doermer, L.	170, 252
Colver-Glauvert, E.	87			Dolezal, E.	185
Colvin, F. H.	188			Doman, W. A.	34, 38, 109
Colvocoresses, G. M.	26, 103			Domljan, L.	41, 53, 117, 143, 172
Comber, W. G.	186			Dompé, L.	81
Comey, A. M.	196			Donath, Ed.	127, 131, 138, 306
Compton, A. M.	157			Donk, M. G.	146
Concklin, B. M.	11, 75, 200				
Cone, E. F.	86, 92				
Conklin, H. R.	29, 73, 244, 251				
Conlin, T.	11, 75				
Conner, C. R.	207, 228				
Conner, E. T.	18, 127, 200, 208, 234				
Conrad, W.	84, 94				
Contzen, H.	206, 259, 271, 284				

D.

Dalrymple, J.	7, 122, 206
Dammann, J.	175
Danels, J.	122, 202, 207, 211, 221, 222
Dannasch, H.	153
Danne, J.	285
Danneberg, E.	232, 254
Darling, C. R.	258
Darras, M.	21, 152, 153, 159, 200
Darrow, W. E.	5, 73, 253
Dart, A. C.	22, 101, 265
Daugherty, R. L.	19, 63, 106
Dautriche,	193, 194
Dautwitz, F.	112, 173, 309
Davey, W. H.	35, 57, 68
David, W. T.	207, 223

MINING WORLD INDEX OF CURRENT LITERATURE.

Doss, B.	149, 178,	807	Emrich, H. H.	59, 249,	254	Fisher, H.	139
Douglas, J.		3	Engelhardt, V.		93	Fisher, S.	145, 207
16, 54, 62,	132, 135,	318	Engler, C.			Fisher, W. L.	2, 120, 212
Doumer, P.		89	42, 127,	148, 148,	165, 306	Flahinger, E. G.	378
Dowling, W. R.		245	Ennis, W. D.		204, 288	Fitch, T. T.	276
37, 70, 72,	238, 243,	249	Eppstein, F.		164, 267	FitzGerald, F. A. J.	
Downer, F. M.	7, 73,	106, 249	Erberich		139	93, 115, 251,	257
Downey C. J.	7, 62,	246	Erhard, G.		85	Flachs	145, 230,
Dowson, J. E.		137	Eriksson, H.		192	Flade, Fr.	207
Drake, A. P.		276	Ermen, W. F. A.		61	Fleck, A.	570
Dralle, R.		161	Ernst, L. R.		142	42, 43,	277
Draper, C. H.		201	Ernst, W. A.	155, 268		Flegel, K.	
Draper, D.		35	Eschenbruch	128, 236,	247	41, 43, 57, 78, 117, 166,	171
Draper, T.	39, 69		Escudero, J. F. de.		30	Fleissner, H. 91, 154, 168,	203
Dresser, H. L.	11, 300		Esch, O.	259, 286		Fleming, B. P.	298
Dressler, C.	161		Estep, H. C.	11, 75, 89		Fleming, W. R.	318
Dreyfuss, E. D.	272, 289		Ettrup, L.	5, 186		Flegel, G.	176, 310
Drown, H. B.	166		Eulenstein, Fr. 115, 116,	251, 258		Flinn, A. D.	189
Drucker, A. E.	43, 246		Euler	281, 299		Florence, W.	208
Druckman, K.	100, 135,	260	Evans, A. W.	10, 121,	234	Florin, F. B. de.	190, 232
Dudley, C. B.	17, 202,	294	Evans, D. T.		237	Fügel, M.	176
Dufourcq, E. W.	30, 246		Ewing, Sir J. A.		263	Füsin, G.	52, 250
Dulberg		267	Ewing, S.		233	Fürster, F.	127
Dumas, W. C.		178	Eydam, P.		93	Foot, H. W.	52, 175
Dumble, E. T.		4	Eye, C. M.	44, 67,	232	Forbes, D. L. H.	248
Dunlop, J.	272, 284		Eyer, Ph.	161,	258	Force, H. J.	154
Dunlop, J. P.		12	Eyerman, J.		17	Ford, C. M.	227
Dunn, E. J.	48, 79, 109,	172				Ford, L. P.	159
Dunning, J. E.		78				Formenti, C.	296
Dunstan, G.	34, 122					Förster, B. 175, 180, 183,	190
Duparc, L.	45, 101,	306				Fortini, V.	100, 267
Dupuy, J.						Forward, C. B.	104
193, 194, 195, 211, 228,	280					Foss, E. N.	236
Durant, H. T.		269				Foster, D. F.	
Durrell, C. T.	46, 114,	242	Fabesch, H.		158	29, 39, 66, 234,	244
Durham, E. B. 59, 73,	106,	249	Fabien	97, 114,	224	Fothergill, H.	290
Durley, R. J.	132, 137,	288	Fabrega, P.		303	Fotheringham, J.	47, 224
Dulberg		138	Fagan, H. J.		177	Foucher, J. L.	267
Durr, A.		229	Fairchild, J. G.	98, 266		Fournier, J.	216, 284
Dunagey, E.	52, 275		Fairchild, J. W.		244	Fowler, G. J.	189, 245, 296
Dushman, S. 25, 27, 28,	74, 103		Falch, O. E.		275	Fowler, S. S.	25, 103, 212
Dussert, M.	40, 79,	308	Falkenthal, E.		275	Fox, C. H.	212, 221, 245
Du Tait, A. L. 34, 57, 101,	208		Fallères, A.	132, 214,	310	Fraga, E.	102, 155
Düttmann, R. A.		236	Fanning, P. R.	44, 67,	232	Franchet, L.	150
Dux	52, 249		Farmer, G.		206	Frank, A.	180
Dvorkovic, P.		140	Farquharson, R. A.	49, 69	35	Frank, J.	189
Dwerryhouse, A. R.	185, 304		Farrar, Sir G.	39, 57		Frankel, H.	1, 54
Dwight, A. S.	59, 98,	261	Farwell	272, 282, 288		Frankforter, G. B.	1, 181
Dwyer, W. J.			Fauch, Alb.	144, 190,	201	Franklin, J. S.	198, 201
53, 113, 173, 243,	244		Fechheimer, C. J.		276	Franklin, M. W.	252
Dye, A. V.	30, 168		Feder	212, 228		Fraser, H.	10, 27, 145, 178
Dyson, C. W.		147	Fegan, H. J.	183, 310		Fraser, H. G.	275
Dyson, S. S.		264	Fellitz, H. von	150, 168		Fraser, L.	184
			Felber, A.		176	Frazier, R.	168
			Feld, W.		139	Frazier, S.	162
			Feldhaus, F. M.		222	Frech, Fr	124
			Feldmann, K.		150	132, 172, 201, 301, 306,	313
			Felser, H. L.		87	Fréchette, H.	76
			Fenaroli, R.		103	Fredriksson, N.	160, 161
			Fenchel, A.		264	Free, E. E.	152, 177
			Peret,		110	Freeman, J. R.	152, 177
			Ferguson, H. G. 44, 67, 110,	308		Freer, P. C.	44
			Perla, A.	131, 267		French, A. G.	25, 115, 250
			Permor, L. L.	80, 98		French, A. T.	254, 268
			Pernd, R. H.	137, 282		French, H.	106, 235, 316
			Perraz, L. C.	32, 186		French, A. B. 7, 111, 112,	247
			Pichtel, C. L. C.	12, 54		Freud, B. B.	145
			Piebelkorn	153		Freund, M.	85
			Pieber, R.	86		Frey, F.	230
			Pieghen, E. G.	296		Frey, F.	231
			Piegler	184		Friedberg, M.	192, 220, 291
			Pielden, F.	137		Friederich, K.	100
			Pieldner, A. C.	131, 136,	268	Friedländer, E.	281, 298
			Pillinger	234		Friedmann, A.	181, 302
			Pinch, A. H.	291		Friedrich, A.	81, 116, 162, 260, 293
			Pinch, J. K.	196, 267		Friedrich, K.	51, 59, 74, 75, 90, 98, 106, 116, 181, 253, 260, 282, 263, 265, 293, 302, 316
			Fink, C. G.	185		Friedrich, K. A.	254
			27, 53, 54, 101, 106,	251		Friend, J. N.	86
			Finlay, J. R.	213, 322		Fritsch, J.	169
			Finlayson, A. M.	43, 143		Fritz, W.	173
			Finney, J. E.	4, 153, 235		Froehner, R.	102, 173
			Finzi, L.	281, 299		Fuelt, A. W. H.	32, 68
			Flochl, G.	178		Früh, H.	108, 310
			Fischer, E. J.	139, 164		Fuller, J. P.	180, 238
			Fischer, F.	269		Fuller, J. T.	4, 189, 244
			Fischer, F. L.	184, 218, 217,	230	Fuller, M. L.	303
			Fischer, R.	124		Fuller, S. J.	81
			Fischer, S.	7, 111, 112,	240	Fulton, C. H.	264
			Fischer, W. F.	290		Fulweller, W. H.	164, 267
			Fischer	272			
			Fishback, M.	293, 313			
			Fisher, F. L.	14			

MINING WORLD INDEX OF CURRENT LITERATURE.

Forsman, W. H. 17, 223
 Fürth, H. 80, 226
 Futers, C. 223

G.

Gaehr, D. 254, 300
 Gahl, R. 244
 Gaines, E. H. 50, 101, 152, 157
 Galdi, B. 143
 Gale, H. S. 20, 177
 Galloway, C. F. J. 25, 120
 Galloway, W. 122
 Gamus, N. 32, 112, 142
 Ganet, L. 39, 57
 Ganet, L. 79, 84, 115, 178, 225, 251
 Gano, W. F. 154
 Garcia, J. A. 17, 121, 128, 133, 212
 Gardam, J. B. W. 289
 Gardner, C. B. 32, 34, 43, 109
 Gardner, M. A. 174
 Gardner, R. B. 204
 Garland, C. M. 187
 Garlick, C. H. 284
 Garratt, F. 86, 112
 Garrett, F. C. 32, 141, 164
 Garrison, F. L. 2, 302
 Gary, M. 162, 257
 Gascoyne, R. 34, 35, 37, 68
 70, 125, 219, 248, 272, 277
 Gaskell, T. 194, 197, 208
 Gassaway, S. G. 4, 144, 203, 276
 Gavelle, P. 168, 267
 Gavin, W. H. 199
 Gawalowski, A. 32, 141, 164, 165, 171
 Gayley, J. 31, 80, 259, 261, 295
 Gebhardt, G. F. 290
 Gee, L. C. E. 48, 102
 Gee, W. J. 241
 Gelpel, W. 129, 272
 Gelpert, J. 137
 Geldmacher, M. 176
 Gentebrock, C. 220, 291
 Gény, P. 127, 306
 George, H. O. 10, 16, 141
 George, W. H. 22, 223
 Georgiades, A. J. 117, 317
 Geralla, F. 17, 234
 Gerke, A. 77, 215
 Gerry, C. N. 1
 Gianno, S. 41, 166, 178
 Gibson, A. H. 242
 Gibson, T. M. 2, 108, 186
 Gibson, T. W. 27
 Gibson, W. L. 74, 246, 265
 Giebel, H. A. 175, 315
 Gieser, H. S. 37, 72, 246, 248
 Gigli, T. 149
 Gilbert, G. H. 192, 196, 199, 202, 216, 286
 Glichrist, C. A. 183
 Glichrist, P. S. 8, 102, 166
 Gill, A. H. 131, 135, 146, 208
 Gillespie, J. 279
 Gillet, C. 116
 Gillhausen, W. G. 60
 Gillon, R. 135
 Ginstous, G. 41, 166, 309
 Gioletti, F. 263
 Grault, E. 29, 246
 Grisevald, C. von. 181
 Gjessing, O. 79, 281, 300
 Gfuke, G. E. 132
 Glasenapp, M. 45, 58, 166, 171, 178
 Glaser, R. 172, 265
 Glazer, J. 162
 Glenn, L. C. 19, 309
 Gligel, G. 181
 Glinzer, J. 152
 Glöckner, H. 127, 306
 Glouschkow, I. 180
 Goblet, A. 137
 Godeau, G. 128, 137
 Goecke, O. 251, 267
 Goehrens, P. 85, 91
 Goetz, Al. 27, 75
 Goetz, Fr. 208
 Gold, K. 186, 188, 279

Goldberg, G. 51
 Golding, C. E. 3, 59, 240
 Goldingham, A. H. 262
 Goldreich, H. 208
 Goldschmidt, C. 133, 315
 Goldschmidt, K. 110, 254
 Goldstein, H. 299
 Golodetz, A. 145
 Goltra, W. F. 209
 Gonzales, M. C. 33, 56
 Gonzalez, F. 29, 66, 104
 Goodale, S. L. 26, 56, 76, 209
 Goodall, A. 135
 Goodchild, W. H. 108
 Goodin, B. J. 18, 135
 Goodney, S. J. 197
 Goodrich, H. C. 20, 54, 188, 300
 Göpner, C. 196
 Gordon, C. S. 91, 258
 Görrer, K. 175, 310, 315
 Gosnell, E. E. 25
 Gottsberger, B. B. 3, 54
 Gottschalk, V. H. 302
 Gouvy, J. 91, 283, 293
 Gow, A. M. 75, 231, 288
 Gowland, W. 50, 254, 317
 Grabig, B. 67, 306, 309
 Gradenwitz, A. 297
 Graefe, E. 32, 164
 Graham, C. 25, 223
 Graham, E. M. 199
 Graham, S. N. 27, 29, 72, 104
 Grahn, H. 225
 Gramir, G. 157
 Gramm, H. 275
 Gramm, K. 153
 Granig, B. 67, 306, 309
 Graves, H. G. 43, 88, 317
 Gray, Al. 25, 27, 56, 65, 72, 101, 103
 Gray, F. W. 24, 26, 120, 224
 Greaves, R. H. 61
 Greaves-Walker, A. F. 159
 Green, G. V. 177
 Greene, A. H. 204
 Greenfield, W. H. 48, 69
 Greenway, T. J. 148, 153
 Greenwell, A. 133
 Greenwood, H. C. 251, 254
 Grether, W. S. 212
 Griffith, Wm. 2, 10, 18
 120, 127, 128, 200, 208, 210
 Griffiths, J. L. 131, 295
 Grimshaw, R. 203, 277
 Groeb, A. 173, 267
 Grönwall, H. 93
 Grossmann, H. 52, 168
 Grothe, A. 29, 66, 104, 263
 Groud, Ch. 158, 168
 Grove, D. 46, 169
 Grow, C. M. 4, 149
 Grundy, J. 205, 207, 215, 228, 288
 Grube, G. 246, 250
 Grupe, H. 304
 Grut, T. 154
 Guardola, R. 31, 80, 309
 Guell, A. 275
 Guérin, J. 206, 216, 268
 Guernonprez, J. 32, 123, 166
 Guertler, W. 51, 263
 Guest, J. B. 194
 Guest, J. B. 194
 Guillemain, C. 232, 260, 293
 Guillet, L. 52, 59, 72, 84, 92
 93, 100, 239, 249, 254, 264
 Guiselin, A. 146
 Gulbrandsen, S. 107
 Gullachsen, B. C. 127, 197, 200
 Gull, N. E. 263
 Gumberz, A. von. 84, 231
 Gunsaulus, E. N. 38, 163, 284
 Gunsolus, F. H. 184
 Günthersberger, J. 134
 Gutbier, A. 101, 264, 266
 Gutmuth, H. 288
 Gutmann, H. 124
 Guttman, A. 91, 154, 233
 Gwiggner, A. 137, 139, 267
 Gwosdz, J. 137, 295

H.

Haas, B. F. 133, 150
 Haar, S. 219, 277
 Haas, J. 275
 Haase, H. 225
 Häberle, D. 181, 301
 Hadfield, Sir R. A. 43, 88, 317
 Hadfield, W. H. 87
 d'Haenens, J. 197, 226
 Haerberle, A. T. 31, 66, 164
 Haenig, A. 162
 Hafer, C. 30, 56, 66, 273
 Hafer, C. C. 244
 Hager, D. 4, 144, 190
 Hague, Wm. 212, 314
 Hahn, F. F. 16, 181, 306
 Hahn, O. H. 99, 108, 124, 175
 Haigh, S. C. 204
 Hailey, C. P. 123
 Haines, W. B. 116
 Halaceanu, C. 145
 Haldane, J. S. 208, 268
 Haldane, Wm. G. 262
 Hale, H. 226
 Haley, C. S. 5, 17, 70, 188
 Hall, A. E. 27, 65, 183, 189
 Hall, A. L. 38, 64
 Hall, Cl. 193, 194, 196
 Hall, E. J. 61, 265, 266
 Hall, F. 7
 Hall, J. W. 89
 Hall, R. D. 18, 19, 127, 135, 210, 304
 Hall, R. G. 116, 254
 Hall, R. W. 218
 Halleck, F. A. 284
 Hallingam, J. E. 168
 Ham, A. van der. 39, 169, 279
 Hamilton, Alice. 174, 231
 Hamilton, E. H. 258
 Hamilton, E. M. 71, 106, 147, 240, 243
 Hamilton, G. W. 217
 Hamm, T. C. 29
 Hamman, H. 24, 76, 83
 Hamman, K. L. 184
 Hamman, W. D. 6
 Hammer, H. 304
 Hammond, E. K. 91, 231, 280, 283, 293, 299
 Hammond, J. H. 314
 Hanauer, W. 208
 Hancock, W. C. 161
 Hauff, R. 192, 204, 286
 Hauffstengel, von. 222
 Hankon, R. Y. 44, 67, 186
 Hanna, R. 33, 173
 Hansell, N. Y. 295
 Hansen, C. C. 46, 67, 170
 Hansen, G. T. 247, 316
 Hansen, J. H. 273
 Hansen, N. L. 195
 Hanson, C. B. 194
 Hanson, H. 70, 238
 Harbord, F. W. 89, 115, 251
 Hårdén, J. 54, 93, 109, 251
 Harder, E. C. 11, 33, 77
 Hardy, E. 159
 Harger, H. S. 33, 169, 306
 Harger, J. 228
 Hargrave, C. L. 27, 247
 Harker, J. A. 251
 Harman, E. A. 130
 Harmant, E. 234
 Harold, H. 93
 Harper, J. B. 184
 Herriman, H. R. 2, 313
 Harrington, W. G. 165
 Harris, A. B. 250
 Harris, A. H. 17, 71, 241
 Harrison, J. 121
 Harrison, J. W. 32
 Hart-Davis, H. V. 128, 237
 Hartill, B. 206
 Hartie, B. 168
 Hartley, C. 262
 Hartmann, E. 263
 Hartmann, L. 263
 Hartmann, M. L. 73, 105, 253
 Hartmann, W. E. 18, 185
 Hartwell, B. L. 173

MINING WORLD INDEX OF CURRENT LITERATURE.

Hasenclever, M.	61, 98, 116, 162, 260, 293	Higbee, F. G.	185	Huber, C. J.	275
Hasse 230		Hilgenstock, R. W.	139	Huddart, L. H. L.	40, 108
Hassenstein, W.	137, 268	Hill, A. E.	264	Hudson, J. J.	89
Hasslachner, A.	132, 312	Hill, F. C.	213	Hudson, W. B.	10, 141
Hatch, F. H.	35, 75, 305	Hill, L.	227, 286	Hudspeth, H. M.	219, 278
Hatschek, E.	302	Hill, S. B.	231	Hughes, B.	27, 65, 108
Hatfield, W. H.	85	Hille, F.	27, 65, 148, 306	Hughes, L. S.	99, 260, 293
Haultain, H. E. T.	27, 65, 103	Hillmann, W.	14	Hughes, W. T.	200, 209, 231
Hausbrand, E.	181, 248	Hillringhaus, A.	81, 88, 315	Hugon, E. C.	114, 178, 242
Hauser, E.	211, 228	Hilpert, S.	87	Huisat, C. R.	199, 202
Hauser, O.	107, 265	Hinds, T.	98, 113	Humann, P.	195
Hauptpick, E. de.	45, 67, 99, 100, 102, 108, 142, 166, 171, 234	Hintz, E.	172	Hume, W. F.	41, 162, 171
Hayard, F. T.	162	Hirth, A.	93	Humphreys, L.	3, 103
Hawkins, C. L.	152	Hirsch, A.	43, 161	Hunter, A. D.	219, 278
Haworth, E.	10, 17, 141, 149	Hirschberg, C. A.	153, 192, 279	Hunter, J. V.	129, 272
Hay, D.	271	Hlitt, J. E.	130	Huntington, E.	42, 68
Hayward, C. R.	263	Hlxon, H. W.	302	Huntoon, L. D.	71, 238
Hasard, F. H. S.	71, 183, 267	Hobart, F.	74, 82, 101, 103	Hurter, C. S.	195, 224, 207
Head, J. W.	206	Hobart, H. M.	272	Huston, G.	9, 103, 273
Headen, W. P.	7, 173, 302	Hocking, J.	195	Hutchins, J. P.	45
Hearding, J. H.	11, 75	Hodge, W. R.	184, 185, 186	Hutchinson, F.	192, 198, 218, 276
Heath, G. L.	61, 266	Hodges, C. B.	2, 5, 278, 296	Hutchinson, J. W.	14, 72, 238, 247
Heather, H. J. S.	219, 278, 278	Hoeltje	137, 172, 232	Hutton, F. R.	130
Hebe, P.	146	Hoering, P.	151	Hyde, J. E.	16, 127
Hecht, Dr.	161	Hofer, H. von.	148, 149, 208, 223, 302, 306	Hyde, M. D.	130, 301
Hedley, R. H.	254	Hoff, H.	231	Hynes, D. P.	30, 56, 309
Hedley, R. R.	25, 56, 120	Hoffman, F. L.	18, 184, 224		
Heldepriem	130	Hoffmann, J. I.	35, 184, 185	I.	
Helke, W.	98, 109, 254	Hoffmann, R.	213, 314	Ifft, N.	153
Helms, W. C.	1	Hoffman, H. O.	98, 116, 261	Ijams, J. W.	9, 121, 188
Helms, W. C.	1	Hofman, J.	37	Iligner, K.	219, 278
Helms, W. C.	1	Hofmann, F.	196	Ilits, P.	296
Helms, W. C.	1	Hofwimmer, F.	298	Imbusch, H.	234
Helms, W. C.	1	Hogan, P.	194, 298	Ingalls, W. R.	1, 3, 14, 255
Helms, W. C.	1	Hoh 211		Ingalls, W. R.	27, 54, 61, 65, 113, 1, 6, 255
Helms, W. C.	1	Hohing, S.	107, 180, 220	Ingram, E. L.	185
Helms, W. C.	1	Hohle, D.	165	Ipatjew, W.	148, 306
Helms, W. C.	1	Holden, E. C.	316	Irescu, M. J.	143
Helms, W. C.	1	Holdsworth, F. D.	284	Irvin, D. F.	72, 244, 255
Helms, W. C.	1	Holland, C.	194	Irving, J. D.	302
Helms, W. C.	1	Hollender	223	Ives, L. E.	218, 230
Helms, W. C.	1	Hollingsworth, C. H.	199	Iwanow, W. N.	111, 163, 266
Helms, W. C.	1	Hollmann, E.	77, 303		
Helms, W. C.	1	Holloway, G. T.	213, 255, 269	J.	
Helms, W. C.	1	Holloway, T. W.	291	Jabavu, J. T.	36, 233
Helms, W. C.	1	Holman, C. V.	26, 65	Jacka, J. S.	287
Helms, W. C.	1	Holmes, J. A.	316	Jackling, D. C.	3, 16, 20, 54, 55
Helms, W. C.	1	Holt, A.	132, 214, 231, 233, 316	Jackman, A. N.	213
Helms, W. C.	1	Holt, E. B.	30, 56, 104	Jackson, B.	108, 243
Helms, W. C.	1	Holt, T. P.	20, 72, 247	Jackson, C. F. V.	48, 126
Helms, W. C.	1	Holtedahl, O.	125	Jackson, H. D.	271, 272, 278, 291
Helms, W. C.	1	Holtmann	53, 98, 114, 242	Jacob, A.	52
Helms, W. C.	1	Holtz, H. C.	45, 101, 309	Jacobs, E.	24, 25, 27, 56, 64, 103, 113, 120, 234, 255
Helms, W. C.	1	Holverscheld, A.	93	Jacquelin, A.	191
Helms, W. C.	1	Holzbutter, E.	280, 295	Jacquier, G.	50
Helms, W. C.	1	Holzwarth, H.	283	Jaczevski, L.	172, 201
Helms, W. C.	1	Homann	197	Jaeger, F. M.	53, 107
Helms, W. C.	1	Homburger, H.	5, 186	Jakob, W.	43, 107, 111
Helms, W. C.	1	Hommel, W.	42	James, A.	247
Helms, W. C.	1	Hood, F.	144	James, G. A.	243, 246, 269
Helms, W. C.	1	Hooke, A. W.	39, 108	James, Geo.	72
Helms, W. C.	1	Hoover, H. C.	46, 313	Jameson, G. S.	100, 266
Helms, W. C.	1	Hopkinson, E.	203	Jameson, C. E.	22, 63
Helms, W. C.	1	Hore, R. E.	12, 27, 54, 62, 65, 75, 103, 177, 200, 239, 240, 255, 302, 308, 309	Janecek, E.	50, 155, 178, 209
Helms, W. C.	1	Hornaday, W. D.	31, 141	Janin, C. J.	1, 2, 1, 2
Helms, W. C.	1	Hrner, J.	291	Janin, L.	23, 44, 45, 48, 186
Helms, W. C.	1	Horth, H. H.	232	Janin, L.	244, 245
Helms, W. C.	1	Horvath, J.	117	Jansen, E.	281, 295
Helms, W. C.	1	Horwood, C. B.	86, 68, 305	Janus	124
Helms, W. C.	1	Hosea, R. M.	183	Janzen	195
Helms, W. C.	1	Hoskin, A. J.	183, 213	Jäpling, E.	50, 255
Helms, W. C.	1	Hosking, J.	12, 54, 194	Jarman, A.	47, 69, 72, 106, 247
Helms, W. C.	1	Hosstetter, J. C.	85, 112, 266	Jarrijo, O.	207, 218, 284
Helms, W. C.	1	Hottenger, G.	78	Jean, E.	158
Helms, W. C.	1	Hottenger, G.	290	Jeans, H.	88, 3, 4
Helms, W. C.	1	Hough, G. J.	104	Jeffrey, R.	271
Helms, W. C.	1	House, W.	149	Jenkin, A.	218
Helms, W. C.	1	Howard, C. A.	6, 63	Jennings, H.	14, 186
Helms, W. C.	1	Howard, J. E.	86, 159, 288	Jennison, W. F.	26, 171
Helms, W. C.	1	Howarth, R.	271	Jensen, J. N.	259
Helms, W. C.	1	Howe, H. M.	83, 85	Jesche, H.	180, 261
Helms, W. C.	1	Howe, M. A.	210, 213	Jessup, D. W.	184
Helms, W. C.	1	Howell, S. M.	169, 2, 2	Jichinsky, L. W.	226, 228, 231
Helms, W. C.	1	Howell, S. P.	193, 194	Joannini	158
Helms, W. C.	1	Hoyer	99, 379	Jocillet, P.	110, 249
Helms, W. C.	1	Hubbard, C. I.	290	Johannsen, O.	86, 91, 260, 268, 293
Helms, W. C.	1	Hubbard, J. D.	43, 73, 253		
Helms, W. C.	1	Hubbard, P.	139, 147, 164, 165		

MINING WORLD INDEX OF CURRENT LITERATURE.

John, H.	206
John, H.	78
Johns, B. S.	12, 59, 255
Johnson, A. N.	163
Johnson, A. R.	117, 255
Johnson, C. F.	115, 251
Johnson, E. H.	37, 73, 245, 253
Johnson, F.	50
Johnson, F. L.	215
Johnson, H.	40, 108
Johnson, H. S.	177
Johnson, I. C.	156
Johnson, J. E.	183, 303
Johnson, J. M.	212, 213, 221
Johnson, R. C.	197, 198, 199
Johnson, R. D. O.	33, 66, 67, 188, 273
Johnson, R. H.	148, 306
Johnson, W. McA.	115, 251
Johnson, W. W.	2, 108, 186
Johnston, A. McA.	37, 74, 246, 247, 265
Johnston, J.	258
Johnston, J. K.	18, 22, 121
Jolsten, A.	85
Jones, A. H.	244
Jones, C. V.	208, 302
Jones, E. C.	135
Jones, E. R.	12, 197
Jones, H. C.	102, 249, 250, 262, 269, 303
Jones, J. E.	26, 64
Jones, J. H.	121, 236
Jones, J. T.	11, 90
Jones, J. W.	284
Jonstorf, H. J. von.	89
Jordan, W. A.	158
Joslin, F.	2, 120
Josse, E.	271
Jourdan, C. J. N.	191, 206, 227
Judd, E. K.	228, 240, 316
Judd, H. A.	40
Judson, W. R.	203, 277
Julin, J.	210
Junge, F. E.	282
Jungst, E.	117, 124, 132, 234, 312, 315
Jzart, S.	128, 287, 295

K.

Kaeding, H. B.	31, 67
Kaiser	289
Kallscher	250
Kalkow, Dr.	174
Kallauner, O.	269
Kammerer	188
Kandler, H.	192, 279
Kantschew, K.	86, 111, 266
Kaiser, E. W.	51
Kaplan	203, 292
Karbe	204
Karg, F.	33, 122
Kasal, S.	154
Katz, F. J.	3, 11, 65
Katz, F. J.	103, 120, 141, 161, 307, 309
Kaufman, G.	156
Kaufman, L.	178
Kaumann	273
Kawamura, T.	43, 58
Kayser, H.	178
Kebler, E. A.	83
Keedy, D. V.	248
Keeling, F. A.	162
Keene, L.	133
Kegel	206, 292, 294
Kellhack, K.	201
Keler, H. von.	163, 173, 179, 181, 252, 260, 293
Keller, E.	269
Kellermann, H.	53
Kelley, P. K.	113
Kelly, A. K.	276
Kelly, P. K.	22
Kemp, J. F.	62, 80, 199, 303, 309
Kendall, E. C.	61, 286
Kennedy, J. D.	6, 173, 177, 181
Kennedy, J. E.	22, 113
Kennedy, R.	289
Kennedy, W. P.	300
Kerkstock	124

Kern, E. F.	59, 61, 73, 74, 106, 253, 265
Kern	41, 126, 172, 311
Kerr, E. W.	147
Kerr, G. L.	127, 214
Kerr, M. B.	6, 14, 63
Kershaw, J. B. C.	93, 182, 234, 250
Kershaw, J. W.	282
Kershner, W. T.	194
Kesselring, F.	272
Kessel, K.	131
Ketchum, M. S.	214, 220, 248, 300
Ketzler	281, 299
Key, A. Cooper	36, 68, 197, 314
Keyes, C. R.	308
Kidder, S. J.	15, 72, 247, 248
Kiefer, H. E.	155
Killik, F. A.	42, 71, 241
Kilpatrick, W. M.	206
Kimball, G. H.	282
Kindelan, V.	31, 80, 309
Kinder, H.	85
King, A. F.	216
King, A. R.	284
King, J.	185, 191, 258
King, L. V.	302
King, W. E.	11, 79, 298
Kirk, C. T.	14, 62, 303
Kirkham, Wm.	197, 200
Kirschbraun, L.	20, 32, 164
Kischka, C.	81
Kittel, J.	101, 250, 267
Kittl, E.	179
Kjellin, F. A.	90
Klahr, Dr.	158
Klason, P.	103, 179, 267
Klautsch, A.	172
Klebersberg, R. von.	41, 306
Klehe, T.	158
Klein, F.	267
Klein, O.	115
Klein, R.	287
Klein, W. C.	123, 306
Kleinlogel, A.	154
Klinckowstroem, K. von.	184
Klingenberg	272
Kloes, J. van der.	157, 158
Kloss, H.	51
Klugh, B. G.	80, 179, 261, 295
Knabenshue, S. S.	42, 126
Knapp, J. G.	15, 64
Knauer, H.	202, 294
Knesche, J. A.	288
Knight, C. D.	276
Knight, C. W.	27, 103, 308
Knight, J.	313
Knight, W. C.	20, 140
Knoblauch, O.	291
Knobloch, F.	176
Knopf, Ad.	2, 64, 171
Knowles, H. G.	32, 34, 122
Knowlton, H. S.	232
Knox, G.	232
Knox, H. H.	62, 179, 303
Knox, W. M.	43, 68
Kobayashi, M.	51
Kobrich	217, 234, 311
Koch, H.	250
Koch, M.	192
Koch, W. A.	183
Koerner, J.	161
Kohlschütter, V.	53, 116, 163
Kohn, H. S.	163
Kohne	124, 307
Kohout, J. F.	86
Konecny, F.	203
Konigsberger, J.	208, 302
Koon, S. G.	88, 234
Koppin, C.	195, 217, 230, 289
Kormann, K.	175, 310, 315
Korner	203
Kosman, P.	159
Koss, A. K.	164
Koster, E.	284
Kothny, E.	93
Kowalke, O. L.	116, 131
Kozu, S.	43, 176, 303
Krantz, Fr.	114, 143, 231, 255
Kratz, A. P.	137
Krause, L. B.	317
Kravani, V.	112

Kreisinger, H.	132, 288
Kretzschmar, F. E.	277
Kreutz, Wm.	2, 3, 315
Kreuzkam	77, 132, 313
Krey, H.	248
Krieger, P.	153
Krische, P.	163, 175
Krohnke, O.	117
Kroning, E. E.	192, 286
Krusch, P.	41, 75, 166, 184, 213, 304
Kryshanofsky, W. F.	45, 163
Kuelling, H. J.	165
Kuhl, H.	50
Kuhn, D. W.	80, 153, 154, 155, 255, 293
Kuhnel, J. F.	133, 315
Kummer, W.	204
Kunz, G. F.	34, 170
Kuppers, A.	90, 260
Kurek, F.	92
Kuss, H.	226, 227
Kutschera, J.	153
Kynaston, H.	34, 162

L.

Labes	197
Labey, L.	67
Lach, B.	164
Lacroix, A.	39, 40, 69, 112, 170, 303
Lacroix	206, 277
Lahee, F. H.	18, 304
Laing, J.	22, 121, 284
Laird, J. R.	145, 216, 278
Lake, E. F.	92
Lake, W. H.	281
Lakes, A.	7, 24, 25, 26, 28, 64, 65, 113, 141, 145, 214, 224
Lakes, H.	30, 64, 104, 183, 209
Lamb, M. R.	71, 238, 244, 245
Lambert, L.	222
Lammert, R.	79, 242
Lamplugh, G. W.	123
Landau, W. S.	209
Landis, W. S.	295
Landsberg, L.	164
Lane, A. C.	13, 26, 62, 303
Lane, H. M.	271
Laney, F. B.	261, 293
Lang, H.	239, 264, 269, 293
Lange, J.	283
Lange, O.	174, 179
Langedonck, C. van.	94
Langer	283, 291
Langford, F.	33, 56, 255
Langfurth, A.	193
Langheinrich, E.	81
Langton, J.	213, 34
Lankester, Sir R.	180
Lantz, C. H.	233
Larcombe, C. O. G.	49, 69, 305
Larned, E. S.	152, 157
Larsen, E. S.	7, 52, 177, 309
Larson, A. T.	151
Larter, A. T.	137
Laschinger, E. J.	244
Laske	223
Lass, W. P.	2, 72, 240, 247
Lassar-Cohn	166, 176
Lassleur	173
Lathe, F. E.	61, 267
Latimer, J. F.	148
Lauchli, E.	199, 208, 302
Lauck, W. J.	2, 3, 6, 11, 14, 18, 55, 59, 63, 75, 76, 134, 232, 233, 255
Laucks, I. F.	183
Lauffer, C. A.	230, 280
Laur, F.	57, 68
Laval, C. G. de.	78, 89, 102, 198, 301, 313
La Valle, G.	203
Lawrence, B. R.	78
Lawrence, C. E.	316
Lawrence, H. H.	233
Lawrence, J. N.	290
Laws, E. H.	181
Layng, H. R.	8, 99, 262
Lazare	74, 246, 265
Lazarevic, M.	140

MINING WORLD INDEX OF CURRENT LITERATURE.

Lasell, E. W.	158	Loewenstein, L. C.	208	Marshall, T. R.	29, 104
Leake, P. D.	213, 314	Loggin, N. A.	71, 188	Marshall, W. F.	273
Lesnig, J.	185	Lohman, W.	172	Martell, V.	50, 255
Leask, A. R.	208	Lomax, A.	110, 161	Martell, P.	33, 42, 43, 88,
Leather, J. W.	43, 173, 175	Lomax, J.	131	117, 173, 181, 182, 255, 317	
Le Blanc, M.	250	London, W. J. A.	289	Martin, A. H.	5, 6,
Lebrun, A.	46, 311	Longobardi, E.	32, 112, 141, 142	15, 55, 59, 63, 64, 71, 72,	
Lechat, V.	218, 222, 278	Loomans, D. J.	129, 299	183, 186, 187, 238, 240,	
Le Chatelier, H.	258, 263	Loppe, F.	263	248, 255, 261, 279, 293, 294	
Lecouteux, G.	101, 250	Lord, P. B.	29, 104, 308	Martin, F. J.	236, 303
Ledebur, F.	86, 89	Lorenzen, H. B.	94	Martin, G. C.	3, 8,
Ledouble, M. O.	211, 215	Lorenz, H.	282	65, 108, 120, 141, 307, 309	
Lee, G. M.	25, 59, 255	Lorenz, E. A.	49, 214, 235	Martin, J. J.	43, 68, 183
Leehey, M. D.	2, 120, 313	Loring, F. C.	207	Martin, K.	42
Leeming, F. B.	218, 218, 278	Loser, E.	240	Martin, W.	101
Leerberg, N.	129, 203	Lotti, A.	289	Martin, W.	112, 255
Leese, J. S.	205, 206, 257, 277, 287, 288	Loudon, T. R.	83	Marton, G.	92
Leffer, J. S.	94	Loughlin, G. F.	177, 304	Marx, E.	175
Le Gall du Tertre, G.	257	Lovegrove, L.	42	Massart, E.	107, 117
Lehmann, M.	175, 202, 294	Lovejoy, E.	190	Masselot, E.	50, 52, 61, 100, 260, 301
Lehne	283	Lovejoy, J. F.	129, 296	Massey, G. P.	189
Leis, J.	148, 312	Lovibond, J. W.	259	Maatbaum, K.	179, 225, 298
Leitch, D. C.	38, 205	Low, V. F. S.	12, 14, 20,	Mathesius, W.	87
Leith, C. K.	11, 27, 31, 33,	59, 75, 196, 218, 261,	278	Mathot, R. E.	282, 291
75, 76, 77, 80, 304, 309		Lowden, H. B.	240, 245	Matignon, C.	173
Leitmeier	304	Lowitz, O.	285	Matschoss	316
Lehong, A.	51, 61, 89, 255	Lowrie, W. L.	162	Matson, G. C.	161
Lemaire, E.	195, 210, 228, 229, 290	Loze, Ed.	126	Matt, M. F.	84, 94
Lemberg, H.	124	Lucas, A. F.	10, 19, 141, 179	Matteson, W. G.	107, 308
Lenk, A. B.	250	Lucas, C. E.	137, 264	Matthews, J. A.	87
Lent, L. B.	288	Lucker, F.	166, 267	Matz, A. H.	172
Leo, M.	264, 304	Ludlow, E.	22, 121, 234	Maujer, A. R.	4, 273
Leprince-Binguet, A. F.	123, 129, 134,	Ludwika	93	Mauksich	232
214, 271, 272, 278, 291, 295		Lukis, E. du B.	34, 122	Maurantonio, L.	185
Leroux, A.	51	Lunge, G.	264	Maurer, R. H.	13, 55
59, 90, 98, 116, 253, 254		Lurmann, F. W.	259	Maxwell, H. B.	203
Lesley, R. W.	156	Lustgarten, J.	275	Mayer, J. E.	288
Lessing, R.	131, 135, 267	Luty, B. E. V.	18, 83, 90, 110, 121	Maynard, G.	159, 315
Letcher, O.	36, 68, 206	Lyford, O. S.	272, 289	Maynard, T. P.	121, 155
Lettsome, A. R.	9, 127	Lyman, J.	275	McAllister, C. A.	147
Leucke	234	Lynch, C.	226	McCallie, S. W.	8, 161
Levat, D.	69, 170, 184	Lynde, F.	127, 206, 209	McCaskey, H. D.	1, 74, 100, 104
Levin, A. M.	282			McClave, J. M.	7, 98, 115, 222, 240, 248
Levin, M.	90			McComble, J.	75, 183, 308
Levy, E.	25			McCormac, T.	15, 197
Lewes, V. B.	155			McCormick, B. T.	93, 281
Lewington, G. A. R.	2, 28, 65			McCormick, E. L.	186
Lewis, C. B.	196			McCullough, E.	185, 316
Lewis, E. A.	61, 268			McDermott, J. B.	49, 71, 238
Lewis, G. H.	22, 172			McDermott, J. B.	14, 122
Lewis, J. H.	22, 113			McDonald, G. B.	209
Lewis, R. M.	204			McDonald, P. B.	12, 13, 75, 197, 212,
Lewis, R. N.	137			218, 219, 221, 236, 278, 312	
Lewis, T. L.	133, 235			McEachern, W. A.	12, 75, 200
Lewitz, A.	107			McEvoy, J.	24, 120
Leyde, O.	50, 80, 296			McFarland, F. M.	3, 6, 21, 177
Libert, J.	231, 288			McGahey, C. R.	284
Lickfett, H.	112			McGee, G. T.	14, 64, 104
Liddell, D. M.	61, 73, 99, 101,			McGrath, P. T.	26
108, 110, 116, 255, 265, 269				McKay, G. R.	20, 199
Lieber, H.	102			McKee, C. L.	233
Liebrich, E.	87, 174			McKenna, C. F.	155, 166
Liesegang, C.	34, 311			McKibben, F. P.	3
Liesegang, R. E.	180, 303			McLain, D.	280
Liggett, T.	117, 255			McLaren, A.	19, 53, 64, 101
Lindemann, B.	305			McLeish, J.	24, 83, 120, 196
Linderfelt, T. C.	7, 72, 246, 247, 248			McLellan, J. J.	13, 98, 115
Linderman, E. F.	186			McMaster, W. D.	27, 65, 305
Lindgren, W.	62, 101, 303			McMillan, J. G.	42, 126, 200
Lindner, G.	215, 259, 299			McMurry, S. S.	286
Lindroth, A. E.	217			McNair, S. S.	88
Lindsley, F. R.	2, 82			McRae, F. J.	132, 297, 318
Lipin, W.	89, 94			McVall, J. C.	269, 304, 309
Lishman, G. P.	139			Meachem, I.	51,
Lisse	195, 197			156, 158, 238, 261, 266, 268	
List, E.	99, 286			Meem, J. C.	205
Liston, J.	16, 76, 279			Meesmann	88, 285
Litwehr, A. E.	133, 192, 200, 225, 279, 286			Meher, H.	175, 210, 294
Llewellyn, T. L.	227			Mehrtens, J.	80, 296
Lloyd, D. S.	132			Meier, E. D.	288
Lobel, R.	151, 64			Meissner, W.	148, 165
Locke, A.	15, 104, 308			Méker, P.	175, 182
Lockett, W. T.	139, 296			Melik-Niharo, L.	144, 201, 301
Lodge, R. W.	264			Mellor, E. T.	36,
Lodin	123, 304			Mellor, H. W.	297
Lodwick, G. S.	198			Mellquist, H.	179, 267
Loebell, H.	164, 267			Melbach, E.	235
Loehr, A. von	170			Memminger, C. G.	8, 166
Loew, O.	173				

M.

MINING WORLD INDEX OF CURRENT LITERATURE.

Mendelsohn, A.	191
Mendenhall, H. D.	8, 188
Meneghini, D.	302
Mennell, J. L.	245
Mentzell, C.	205
Menzin, A. L.	4, 144, 188, 190, 288
Merck, E.	265
Merklin	290
Merle, A.	39, 69, 143, 170
Merrill, F. J. H.	22, 30, 71, 140, 243, 311
Merriman, M.	188, 292
Meadag, F. T.	77
Mettler, G.	135, 258
Metzner, M.	233
Meuche, A. H.	13, 55, 189
Meudell, W. G.	48, 69
Meunier, J.	210, 223, 227, 280
Meurer	18, 150, 210, 214
Meurice, Alb.	264
Meuskens, C.	129, 137, 175, 192, 197, 210, 248, 286, 295
Meyer, A. R.	107, 255
Meyer, F. M.	155
Meyer, G.	219, 276
Meyer, G. A.	233
Meyer, H.	85, 128
Meyer	137, 295
Meyer	163
Meyerhein, G.	146, 165
Meyers, C.	94
Meyers, R. E.	100, 111
Michael, R.	190, 208, 302
Michael, W. H.	43, 172
Michaelis, Wm. (sr.)	155
Michel, A.	301
Michel-Roussel, J.	263
Michenfelder, C.	301
Mickle, K. A.	46, 98, 115, 242
Middleton, G.	74, 106, 265
Middleton, J.	1, 8, 13, 159, 161, 169
Migbill, T. A.	151
Milbauer, H.	284
Milbauer, J.	175, 182
Milburn, F.	211
Miles, J. B.	89, 259
Miller, A. A.	83
Milner, B.	21
Miller, C. A.	31, 140
Miller, E. W.	269
Miller, F. S.	204, 287
Miller, G. W.	303
Miller, H.	174, 232
Miller, H. von.	—
Miller, W. L.	250
Mills, S. J. A.	132, 288
Minnich	72, 305
Minto, J.	215
Mintrop, L.	208
Mitchard, F.	217
Mitchell, G. E.	22, 176
Mixer, W. G.	110
Mixen, A.	151
Möhrle, Thp.	128, 220, 221, 245, 294
Molr, J.	205
Molar, C.	269
Moldenhauer, R.	221, 278, 291
Moldenhauer, M.	59, 115, 240, 242, 245
Molengraff, G. A. F.	42, 108
Molliné, M.	101, 106, 264
Molliter, H.	291
Mönkemeler, R.	111
Monkowsky	153
Montalvao, A. de.	57
Moore, D. V.	273
Moore, E. S.	27, 65, 306
Moore, H. F.	113
Moore, J. H.	307
Moore, R. T.	134
Moorshead, A. J.	134
Moravia	33, 107
Morel, E. D.	40, 108
Morely, T. B.	290
Morette, A.	92, 94, 137
Morgan, P. G.	47, 69, 305
Morgan, R. G.	109, 266
Morgans, H. M.	205, 222
Morin	302
Morineau	183, 187, 191, 269
Morison, D. B.	220, 291

Morris, A. W.	245
Morris, F.	196
Morrison, E.	83
Morrison, R. S.	311
Morse, C. A.	155
Morse, H. W.	277
Morse, J. G.	6, 63
Mosman, C. T.	276
Moss, L. deG.	222, 289
Moss, R. S.	151, 259
Mossay, P. A.	116, 262
Mostowitsch, Wl.	216, 278
Mountain, W. C.	216, 278, 280
Mourgeon, L.	129
Mowat, J. F.	129, 288, 295
Moye, A.	155, 156, 157, 161, 171
Moyer, A.	157
Mudge, A. L.	27, 273
Muhlhaus, H.	182
Mukerji, J. N.	43, 173, 175
Mulholland, Wm.	199
Müller, A.	94
Müller, H. E.	100, 309
Müller	139
Müller-Herring	129, 296
Münker, E.	61
Munn, M. J.	307
Munroe, C. E.	196
Munroe, W. H. F.	282
Murray, J.	40
Murray, M. T.	243

N.

Nadler, H. A.	147
Naegell, H.	91, 259
Nagel, O.	116, 163, 174, 255
Naphtaly, S. D.	275
Nash, W. G.	59, 202
Nast, B.	197, 210, 214
Nathusius, H.	94
Naumann, M.	175, 309
Negre, G.	166
Neilly, B.	27, 106, 253
Nelson, R. M.	290
Nelms, H. J.	207
Nelson, A.	190, 195, 197, 199, 200, 202, 204, 205, 207, 209, 215, 217, 218, 228, 230, 276, 280, 284, 288
Nelson, J.	235
Nelson, W. A.	19, 61, 122, 163, 261, 293
Nemecek, J.	271
Neuburger, H.	143, 147, 148
Neumann, B.	94, 264
Neumann, E.	157, 194
Neumann, J.	264
Neumann, R.	173, 268
Neumann	255
Newberry, A. W.	204, 280
Newland, D. H.	16, 64, 77, 309
Newlands, A.	273
Newlands, J. E.	185
Newsom, J. F.	33, 173
Nicholl, B. G.	246
Nicholl, J. S.	157, 262
Nicholson, H. H.	31, 59, 76
Nicol, J. M.	197
Nicol, W. J.	48, 245
Nicolescu, C.	59, 255
Nicoll, J. S.	248
Niess, Dr.	127, 189, 214
Niethammer, F.	276
Niles, R. L.	300
Nirtl, G.	218, 230
Nishio, K.	43, 58, 126
Nissen, P.	37, 71, 238
Nitche, C. C.	114, 266
Noble, F. C.	185, 199
Nold, S. E.	213
Noll, H. de.	92
Nordberg, B. V.	291
Norlin, E.	220, 278, 286, 291
Norlin, E. F.	51, 276
Northrup, E. F.	100, 255
Norton, T. H.	252
Noth, J.	35, 143, 144, 149, 164, 201, 307
Nowak, A.	199, 214
Nübling	135
Nusbaumer	50

O.

Oakley, E. J.	190
Oberhoffer, P.	84
Oberste-Brink	124
O'Brien, P.	11, 75
O'Connell, C. A.	27, 104
O'Donahue, T. A.	184, 314
Odriozola, A.	81, 114
Oebbecke, K.	148
O'Gara, P. J.	147
Ogilvie, R. S.	227
O'Hara, J. M.	155
Okada, Y.	44, 59, 249
Oke, A. L.	186
Olden, C.	33, 170
Older, C.	157
Olson, C. R.	244
Olson, G. L.	213
Opstaele, G.	41, 171
Orthey, W. J.	40, 106
Orthon, E.	86, 101, 268
Orton, E.	24, 161
Osann, B.	69
Ossa, I. D.	33, 56, 59, 106, 253
Ostertag, P.	284
Ostrander, F. T.	145, 297
O'Toole, E.	193
Ott, Fr.	107, 250
Otte	216, 284
Overstreet, R. M.	188
Ovitz, F. K.	130

P.

Pabst, V.	48, 70
Pacoret, E.	301
Paebr	216, 278, 284, 286
Paglianti, P.	84
Palmer, L. A.	20, 104, 106, 185
Palmer, W. P.	87, 215
Pannell, E. V.	52, 61, 275
Faquet, F.	129, 284
Faquet, I.	77, 81
Park, H.	44, 68
Parker, E. W.	12
Parker, Jos.	202
Parks, H. M.	17, 63, 122, 152
Parmelee, H. C.	7, 242, 244
Parr, S. W.	131, 268
Parravano, N.	51, 109
Parsons, C. L.	297
Parsons, F. W.	22, 121, 298
Parsons, R. C.	204
Paterson, Al.	13, 65
Patten, A. J.	166, 268
Patterson, C. W.	17
Paul, F. W.	46, 82
Paul, J.	221
Paul, G.	144, 190, 202
Paulmann	187
Pauly, K. A.	220, 278, 296
Pavlov, M. A.	69
Pawlowaki, A.	78, 79, 81, 181, 301, 309
Payne, C. Q.	238
Pearce, F. I.	10, 122
Pearce, W. C. W.	48, 53, 111
Pearce, W. D.	29, 104
Peel, R.	127, 214
Pelletan, A.	176
Peltier, M. F.	9, 122
Pember, F. R.	178
Penkert, R.	211, 225, 316
Penman, A. P.	213
Pennock, J. D.	139, 173
Penrose, R. A. F.	47, 164, 303
Perceval, G. B.	83, 67
Percy, E. N.	147, 153, 161, 258
Percy, P. C.	138, 151, 252
Perkel, Jos.	255
Perkin, Jos.	233
Perkins, E. S.	3
Perkins, F.	290
Perkins, F. C.	92, 136, 188, 194, 216, 222, 225, 258, 264
Perkins, W. G.	59, 257
Perkins, W. J.	13, 55
Pernot, F. E.	276
Perrenet, L.	164
Perrett, L.	45, 66, 101, 183, 187
Perry, E. W.	81

MINING WORLD INDEX OF CURRENT LITERATURE.

Perry, O. B.	28, 65, 187, 188	Pratt, W. E.	44, 45, 67, 68, 126, 129, 296	Reynolds, S.	127, 128, 134, 200, 234, 313
Perry, R. W.	33, 73, 247	Prelawerk, H.	143, 807	Reynolds, W. C.	163
Peter	261, 293	Prelani, C.	187	Reynolds, W. H.	134, 234
Peters, E. W.	209	Preller, I.	269	Rheinisch, R.	306
Peters, R. W.	276	Prevost, V.	57, 179	Rhodes, G. I.	272
Peterson, A. G.	79, 222, 298	Price, W. B.	51, 266	Rhodes, J. E. W.	305
Peterson, H.	163	Prill, A.	213, 315	Rhys, R. T.	10, 223
Peterson, A. P.	131	Primrose, J. S. G.	39, 263	Rice, C. T.	13, 55
Petit, G.	175	Priwosnik, E.	45, 102	88, 115, 195, 197, 200, 209, 215, 217, 218, 231, 233, 239, 240, 269, 285, 294	
Pettit, J. E.	20, 122	Probert, F. H.	3, 55, 219	Rice, E. R.	185
Pfarr, A.	292	Proctor, W.	206	Rice, G. S.	229
Pfau, A.	273	Probst, E.	116, 264	Rice, S.	97, 104, 219, 279, 94, 298
Pfeifer, J.	149, 223	Probst, W. F.	165	Rice, S. B.	152, 242
Pfeiffer, Th.	176	Provost, A. J.	226	Rich, T.	290
Pfister, A.	281, 299	Pryor, T.	33, 67, 214	Richard, G.	147
Pfoser, A.	91, 293	Pucci, F. S.	81	Richard, L. M. S.	23, 64, 70, 187
Pfudel, E.	139	Pullar, H. B.	165	Richard, L.	60, 179, 262
Phalen, W. C.	1, 4, 10, 15, 19, 20, 22, 52, 62, 163, 166, 177, 179, 181, 261, 293	Pulsifer, H. B.	20, 90, 255, 262	Richards, F.	204, 285, 287
Phelps, H. M.	161, 230, 280	Pultz, J. L.	130	Richards, J. W.	44, 58, 60, 83, 89, 94, 202, 255, 294, 296
Phenis, A.	19, 76, 298	Purdue, A. H.	4, 133, 235	Richards, R. W.	9, 179
Phillip, H.	151, 168	Purlington, C. W.	45, 68	Richards, Wm. J.	27, 65
Phillip, R.	194	Pusch, K.	222	Richardson, D. A.	29, 183, 311
Phillips, H. M.	282	Putnam, W. R.	19, 273	Richardson, F.	287
Phillips, M.	92	Pütz, O.	191, 225, 287	Richardson, T.	133, 285, 314
Phillips, W. B.	19, 20, 29, 76, 79, 83, 100, 122, 129, 141, 169, 298	Pyhala, E.	146	Richardson, W. D.	159, 213
Phillips, W. H.	293			Richarme, F.	89
Picard, M.	57, 176	Quandt, C.	315	Richard, T. A.	7, 26, 48, 64, 65, 305, 314
Pickard, W.	84, 94	Quickel, R. D.	130	Ricketts, A. H.	311
Pickard, R. O.	3, 16, 64, 104	Quitemeyer, Fr.	156	Ridgway, J. H.	290
Pickard, H. K.	240	Quinlan, W. R.	196	Riddale, H. H.	180, 215, 299
Pickels, J. W.	185	Quinney, E. H.	19, 111, 296	Riddale, C. H.	86
Pickering, A. S.	100	Quitzow, W.	190, 206, 302	Riddale, N. D.	86
Pickering, W. H.	224, 230			Riehm, Dr.	136
Pickett, R. J.	206			Ries, H.	24
Pickings, H. B.	53, 65, 78, 111	Radet, G.	317	Riese, R.	161
Pierce, R. A.	7, 122	Radford, W. H.	71, 242	Ries, H.	161
Pietrak, F.	176, 181	Radinsky, J.	41, 174, 179	Rigg, E.	73, 106, 253
Pietrusky, K.	166	Raefer, F.	127, 307	Rigg, G. B.	3, 6, 21, 177
Pilat, St. von.	145	Rakusin, M. A.	146	Ritter, K.	34, 311
Pilkington, H.	87	Ralli, G.	59, 99, 258	Rix, E. A.	285
Pilling, W. S.	87	Ralston, J. C.	273, 313	Roberts, A. H.	274
Pillsbury, A. J.	236	Ralston, O. C.	7, 64, 104, 247, 308	Roberts, F. C.	12, 75, 200
Pina de Rubies, S.	102, 309	Rambousek, J.	232	Roberts, S. S.	281
Pinkl, V.	181, 159, 315	Ramen, A.	59, 179, 297	Roberts, T. P.	18, 202, 294
Pinna, S.	22, 180	Ramsden, C. E.	161	Roberts, W. D.	22, 121
Pitaval, M. von.	107, 255	Randall, J. C.	246	Robertson, G. A.	244
84, 90, 129, 134, 136, 166, 173, 233, 252, 268, 272, 315		Randolph, B. S.	215	Robertson, T. D.	94
Pittman, E. F.	46, 109	Randolph, C. P.	252	Robertson, W. F.	25, 120
Platt, G. M.	269	Range, P.	40, 169	Robertson, W. H.	82, 84, 122
Platt, J. M.	213	Rangel, M.	29	Robinson, B. A.	247
Platts, J. B.	17, 63, 303	Ransome, F. L.	3, 55, 185, 309	Robinson, C. S.	166, 268
Platz, H.	149	Rapier, C. V.	61	Robinson, F. W.	86, 185
Plotts, W.	33, 142	Rassbach, E. C.	218	Robinson, T. W.	87
Plumb, C. H.	17, 97, 113	Rasser, E. O.	139	Rodenhauser	94
Plummer, J.	46, 105	Rateau, A.	259, 286	Roderick, J. E.	18, 121
Pohl, Ad.	180	Rauterkantz, J.	259	Podman, J. C.	192, 196
Pohl, R.	282	Ray, W. T.	132, 287, 288	Roehlike, E. M.	133, 147
Pöhlmann, Ch.	147, 183	Raymond, R. W.	44, 58, 89, 126	Roesler, R.	232
Polzat, C. du.	17, 235	Rea, T. H.	27, 65	Roesler, H. A.	247, 316
Polonyi, H.	164, 287	Read, A. A.	84, 85	Rogers, A. F.	14, 15, 23, 55, 107, 162, 167, 303, 305, 309
Polster	232, 296	Read, T. T.	42, 60, 79, 126, 255	Rogers, A. W.	34, 36, 125, 224, 307, 308
Poole, W.	46, 99, 239, 240, 253	Reagan, A. B.	4, 13, 16, 64, 75, 122	Rogers, F.	16, 162, 304
Popowitsch, D. A.	97	Reat, S. C.	44, 68	Rogers, G. S.	16, 162, 304
Popper, E.	61, 266	Reddie, R.	24	Rogers, J. W.	206
Porter, F. B.	106	Reddening, J.	2, 33, 65, 187, 308	Rogers, W. O.	220, 223
Porter, H. C.	130	Redmayne, R. A.	130, 134, 136, 197, 223, 226, 230, 296	Roland, C. V.	292
Porter, J. B.	24, 120, 128, 131, 132, 136, 269, 316	Redwood, Sir B.	140	Roldan, L. V.	29, 56, 66, 104, 305
Porter, J. J.	2, 79, 83, 90, 136	Reed, F.	128, 188	Rolfe, F. P.	213, 214
Portevin	50	Reed, F. A.	47, 70	Rollandet, G. J.	71, 72, 116, 175, 205, 228, 239, 241, 243, 245, 247
Post, R. E.	189	Reef, A. J.	222	Ronnau, F. P.	28, 66
Postle, K. F.	165	Reid, C. H.	87	Rood, N.	194
Postma, C. E.	167	Reid, G.	226	Roos	160, 161
Potonie	127, 307	Reid, G.	226	Root, W. A.	4, 64
Pough, F. H.	10, 179	Reidmaster, C.	176, 181, 309	Ropes, L. S.	183, 197, 311
Poussin, L. de la V.	173, 252	Reimer, C. L.	178	Rosedale, I.	45, 126
Powell, B. F.	180	Reinhold, K.	273	von Rosen	207, 233, 239
Powell, J. M.	127, 200	Reinhardt, A.	41, 172	Rosenberg, H.	182
Powers, F. D.	46, 214, 248, 307	Rektenwald, J.	124, 219, 278	Rosenfeld, J.	145, 297
Pozzi-Escot, E.	196, 223	Remy, Th.	168	Rosenhain, W.	50
Pradel	296	Renschler, E.	112, 250	Ross, C.	81, 88, 298
Pratt, E. A.	301	Requa, M. L.	4, 5	Ross, J. D.	274
Pratt, H. K.	288	Reumaux, E.	139, 283	Ross, J. S.	276
Pratt, J. H.	16, 55, 107, 172	Reusch, K.	163, 182	Ross, W. H.	226, 233
Pratt, J. M.	187	Reuss	129, 296	Rousseaux, J.	89

MINING WORLD INDEX OF CURRENT LITERATURE.

Routala, O.	165	Schnatterbeck, C. O.	210	Sheldon, G. L.	105
Rowe, H. E.	48, 132, 312	Schneckenberg, E.	250	Sheldon, P.	304
Rowell, H. S.	316	Schneider, G. W.	7, 234, 244	Sheldon, T. H.	213
Rowland, R. H.	185, 213, 289	Schneiders, Fr.	289	Shell, A. R.	15, 177
Roys, R.	137, 206, 206, 271	Schneidewind	177	Shepard, F. E.	239, 241, 248
Royen, H. J. van.	91	Schoew, K. F.	208	Sherman, C. F.	127, 200
Rubischau, H.	35	Schofield, W. McN.	185	Sherrick, J. L.	138
Rücker, F.	233	Scholer, L.	276	Shields, M. J.	226
Rüdel, R.	192, 202	Scholes, S. R.	52, 176	Shiffett, R. A.	19, 76, 121
Ruder, W. E.	100, 111	Schollenberger, C. J.	176, 268	Shimer, H. W.	307
Rudnick, P.	169	Scholtze, G.	127	Shrager, A. L.	198
Ruer, R.	84	Scholz, C.	127, 134, 213, 234	Shubart, B.	7, 20, 122, 299
Ruf, O.	101, 112, 255, 267	Scholz, F. W.	316	Shurick, A. T.	217
Ruggles, W. B.	18, 153	Schömburg, W.	92, 290	Shutt, W. F.	20, 129, 138, 299
Ruhl, O.	10, 13, 97, 113	Schömburg, W.	290	Sibley, E.	274, 286, 290
Ruhoff, O. E.	22, 116, 179, 243, 294	Schönbach, F.	87, 89	Sichsky, E. C.	228
Ruiter de Wiedt, J. C. de.	185	Schönfeld, G.	220, 291	Siddall, F. N.	206
Rupp, E.	268	Schoop, M. U.	117, 263	Sidenvall, K.	97, 114, 124, 308
Rushmore, D. B.	203, 277	Schorrig, O.	130, 176, 299	Siebanthal, C. E.	55, 97, 99, 113, 256
Russell, H. Y.	27, 66, 185	Schott, O.	153, 156, 232, 247, 301	Siefer, F. M.	152
Russell, S. R.	194	Schrader, F. C.	15, 55, 64, 306	Siegel, E.	276
Russwurm	273	Schramm, J.	259	Siegel, F. J.	183, 187
Ruthenburg, M.	251	Schraube, G.	138	Siemens, G.	216, 278
Rutledge, J. J.	193, 194	Schreiber, H.	274, 311	Sieplein, A. T.	61, 256
Ryba, G.	205, 212, 225	Schreiber, H. V.	198	Silberberg, L.	150
Rybak, M.	123, 128, 229	Schrempf, J.	178	Sim, J.	127, 307
Ryerson, W. N.	130, 281, 298	Schrenk, H. von.	209	Simmersbach, B.	44, 46, 142
Rzeznika, A.	60, 130, 196, 230, 255, 269	Schroeder, C.	159	Simmersbach, O. 91, 92, 136, 296	
S.		Schroeder, J.	32	Simmons, J. 19, 23, 64, 122, 236	
Sackett, H. S.	209	Schröder	290	Simms, C. E.	158
Saeller, L.	197, 217	Schroth, K.	128	Simoes, J. M. de O.	185
Sager, J. A.	185	Schults, A. B.	23, 177, 309	Simon, A. L.	302
Sagnac, L.	251	Schultz, E.	219, 278	Simpson, C.	127
Salas, L. E.	106, 265	Schulz, F. C.	204	Simpson, P. L.	190, 191, 198, 199, 230, 307
Salasar, L.	29, 66, 104	Schulz, F.	223	Sims, A. M.	159
Sale, A. J.	61, 266	Schulze, W.	263	Singer, L.	146, 150, 270
Salas, E. A.	16, 133, 235	Schulze, G.	249	Singwald, J. T. 80, 110, 308, 309	
Sallsbury, G. H.	43, 144	Schumacher, F.	67, 124, 305	Sitges, J.	227
Salsmann, J.	202	Schünhoff, F.	159	Sizer, F. L.	4, 55
Sammons, T.	115, 249	Schürmann, J.	276	Sjollema, B.	168
Samter, V.	264	Schury, G.	91	Skaggs, W. H.	2, 121
Sanchez, J. A.	173, 268	Schuster, F.	81	Skewes, Edw.	118
Sanderson, H. H.	15, 224, 225	Schütz, E.	116, 262	Skinner, L. B.	71, 241
Sanderson, R. R.	190, 192, 194	Schwalenberg, G.	157	Skinner, R. P.	177
Sandonini, C.	61, 255	Schwartz, P.	146, 165, 268	Skinner, W. R.	148
Saner, C. B.	36, 63	Schwarz, P.	143	Slawik, P.	84, 86
Sang, M.	117, 250, 283	Schwedtmann, F. C.	102	Slocum, C. V.	84
Santo, P.	189, 279	Schwerdtner, H.	17	Smallwood, J. C.	215, 316
Sanjines, O.	32, 67, 106	Scodfeld, F. W.	17	Smart, G. O.	37, 71, 238
Sansone, A.	175, 143	Scott, E. K.	87, 174, 195, 253	Smith, A. B.	28, 274, 285
Sasira, L.	292	Scott, F.	27, 141	Smith, C. H.	2, 16, 19
Sauder, P. M.	180, 252	Scott, W. A.	9, 15, 20, 73, 97, 115, 242, 247, 248, 311	Smith, C. L.	83
Saunders, L. E.	187, 192, 196, 199, 202, 216, 235, 286, 316	Scott-Hansen, A.	253, 274	Smith, C. W.	213
Sauveur, A.	87, 263	Scrivenor, J. B.	44, 108, 126, 308	Smith, E. F.	250, 264
Savola, U.	114, 241, 256	Seager, J. A.	188	Smith, F. W.	300
Scalfe, H. L.	30, 66, 105	Searcy, W. N.	262, 313	Smith, G. F. H.	171
Scalea, A.	90	Searing, E. D.	276	Smith, G. O.	36, 38, 82, 235
Schaar, R.	199, 224	Searle, A. B.	152, 161	Smith, H. K.	133, 311, 313
Schafarsik, F.	143, 301	Sederholm, J. J.	152, 304	Smith, J.	88, 274, 292
Schäfer, W.	86, 269	Selbert, F. M.	230	Smith, J. T.	143, 147, 190
Schaller, W. T.	20, 21, 52, 100, 107, 110, 167, 170, 171, 176	Seldi, K.	142, 210, 235, 314	Smith, R.	19, 141
Scheel, K.	158	Sell, H. F.	174, 263	Smith, S. B.	19
Schellenberg, F. Z.	229	Sellards, E. H.	8, 152, 167, 169	Smith, S. W. J.	85
Schenfer, K.	276	Selter, Wm.	281, 299	Smith, T. A. W.	212
Scherer, G. C.	157, 198	Semmler, C.	283	Smith, W. D.	45, 68, 126, 307
Schertel, L.	60, 99, 256	Semple, C. C.	191, 194, 218	Smits, A.	85
Schiffner, C.	102, 264	Semple, C. S.	49, 247, 311	Smyth, G. H.	80, 309
Schildbach, R.	54, 253	Serrure, R. T.	285	Sneddon, J. B.	145, 222
Schiller, E.	107	Setchell, W. A.	3, 6, 21, 177	Snell, J. F. C.	272
Schlimpf, H. W.	264	Setz, H. R.	282	Snell, Dr.	227
Schirmelcher	52	Severin, E.	148, 306	Snelling, W. O.	150, 194, 196
Schleichner, A. P.	51	Severy, C. L.	198, 218	Snider, F. T.	251
Schlefer, E.	159, 299	Sexton, A. H.	89, 263, 284	Snider, L. C.	17, 97, 113, 122, 152
Schlick, E.	156	Shannon, D. M.	283	Snodgrass, J. H.	163
Schmatolla, E.	6, 138, 158, 172, 259	Sharpley, H.	47, 70	Snyder, H. P.	18, 136
Schmeisser	79, 298, 317	Sharwood, W. J.	19, 245, 266, 306	Soddy, Fr.	102
Schmidt, Fr.	135	Shaw, D. N.	35	Söderbaum, H. G.	167
Schmidt, G.	186	Shaw, E. W.	9, 141	Solon, M. L.	161
Schmidt, O.	33, 122	Shaw, L.	186	Sommer, F.	94, 165
Schmidt, W.	91	Shaw, S. F.	27, 31, 66, 67, 117, 213, 269, 306, 314, 317	Sonnabend, W.	147, 258
Schneider, P.	116, 262	Shaw, W. B.	193, 279, 287	Soper, E. K.	161, 308, 309
Schmitt, C. O.	37, 71, 239, 241			Sosman, R. B.	272
Schmitt, C.	207			Souther, H.	92
Schnass	114			Sowter, W. J. U.	283

MINING WORLD INDEX OF CURRENT LITERATURE.

XX

MINING WORLD INDEX OF CURRENT LITERATURE.

Verlop, J. H.	33, 67, 188	Webber, M.	213, 304, 314, 315	Williams, G. W.	46, 70
Verner, J.	10, 194, 208, 224	Webster, M. G.	103, 246, 303	Williams, H.	147, 230
Verney, M.	235	Webster, E. H.	204, 213, 239, 244, 245	Williams, J. H.	21
Verola,	196	Weddell, A.	289	Williams, P.	25, 65, 184
Verrill, A. M.	183, 215	Weed, W. H. 4, 15, 55, 301, 310		Williams, R.	59, 57
Veyret, L.	92	Weeks, F. B.	8, 99, 262	Williams, R. D.	79, 83, 298
Viannay,	219, 278	Weeks, F. D.	23, 140, 307	Williams, R. Y.	9, 224, 230
Vickers, C.	50	Wegemann, C. H.	182, 310	Williams, W.	184, 196, 315
Victor, D.	22, 225	Wegscheider, R.	77	Williams-Ellis, M. I.	219, 223, 278
Vielle, P.	196	Wehmann,	51, 256, 264	Williamson, S. B.	192, 193
Villa, E. di.	42, 170	Weidner, C. R.	204, 286	Willig,	79
Villars, J. R.	14	Weigall, A. R.	42	Willis, R. H.	280
Villasante, F. B.	97, 114, 317	Weigel, W. M.	206	Willmann, E. von.	199, 302
Viola, B.	163, 181, 248, 289	Weiller, P.	263	Willmarth, O. B.	8, 112
Virgin, J.	130, 205, 228	Welgrin, J.	280	Willmott, A. B.	24, 76
Virgin, R. Z. 194, 206, 208, 209		Welschchenk, E.	305	Willrich, G.	28, 66
Vivian, J. D.	213	Weinstein,	147, 268	Willski, P.	185, 318
Vogel, E.	285	Weiss, J. A.	143, 149	Wilson, E. B.	18, 78
Vogel, F. A.	60, 261, 296	Weiss, J. M.	210	Wilson, F. B.	269
Vogel, O.	158	Weiss, S. J.	187	Wilson, F. L. 60, 179, 261, 294	
Vogel, W.	281, 299	Weissner,	312	Wilson, H. M.	182, 135, 204, 230
Vogt, A.	159	Weist, J.	160	Wilson, J. P.	156
Vogt, J. H. L.	75, 304	Weldin, W. A.	22, 128	Wilson, J. B. 47, 114, 201, 308	
Voigt,	117, 267	Weller, F. R.	274	Wilson, P.	197, 212, 217, 221
Voigt, St.	191, 215	Wemple, L. E.	51, 256	Wilson, P. D.	74, 106, 266
Volts, H.	289	Wendruer,	215, 278, 284	Wilson, W.	47, 274
Vuligner, M.	60, 249	Wentworth, H. A.	115, 243	Wilson, W. B.	198, 226
W.				Winchell, A. N. 14, 104, 304, 308	
Wachenfeld, H.	51, 69, 256	Wensel, E.	139	Winchell, H. V.	14, 62, 104, 303, 308, 311
Wade, A. Y.	194, 208	Werndt, F.	88	Winchell, N. H.	12, 80, 320
Wadleigh, F. E.	289	Werner,	274, 292	Winckler, H.	258
Waggaman, W. H.	4, 10, 19, 139, 183, 167	Wesson, D.	145, 189	Windisch, R.	61, 267
Wagner, A.	136	West, H. E.	205	Winship, N.	49, 167
Wagner, E. B.	273	West, T. D.	87, 92	Winslow, A. A.	33, 174
Wagner, H. W.	203	Weat, W.	86, 87	Winstanley, G. H. 205, 207, 228	
Walbank, J. G.	133, 235, 314	Weston, E. M.	195, 197	Winter, H.	85
Walker, A. L.	60, 256	Weston, W.	8, 122, 152, 202	Wintermeyer, 189, 220, 231, 291	
Walker, D. R.	138	Wesselasky, J.	102, 173	Witherspoon, W. L.	36, 207
Walker, E.	242	Wethered, O.	40, 108	Wittich, L. L.	10, 13
Walker, H. G.	20	Wethers, G. J.	128	Witt, 97, 113, 141, 199, 201, 202	
Walker, M.	244	Weyl, F.	92	Wittstein, H. L.	199
Walker, M. A.	18, 128, 239	Weymouth, G. S.	285	Witz, A.	272, 282
Walker, R. A.	83	Weymouth, T. B.	149, 150	Wuill,	77
Walker, S. F.	216, 219, 220, 230, 276, 314	Wheeler, F. G.	203, 247	Woginz, A.	101, 150, 287
Walker, T. L.	24, 28, 100, 111, 242	Wheeler, H. A.	9, 13, 97, 141	Wolciechowski, B.	59, 267
Walker, W. H.	85, 117	Wheeler, H. J.	158, 168	Wolcott, G. E.	193, 201
Walker, W. R.	94	Wheelock, R. O.	186	Wolf, A.	152, 159, 239
Wallace, H. V.	218	Wheelwright, J. H.	10, 121	Wolf, J. H. G.	5, 140
Wallace, R. B.	218, 226	Wherry, E. T.	18, 112	Wolf, N.	276
Wallace, T. A.	32, 167	Whipple, B. J.	180	Wolf, Th.	88, 291, 317
Wallichs, A.	220, 221, 231	White, A. H.	132, 135, 158	Wolf, Th.	138, 151, 168
Waleh, Wm.	14, 55, 104, 113	White, B.	289	Wolter, K.	164
Walter, E. W.	60, 258	White, D.	15, 113, 131	Wood, B.	219, 279
Walter, P. A. F.	16	White, E. E.	12, 76, 184, 185, 190	Wood, H. E.	100, 241, 242
Walton, S. F.	110, 282	White, H. A.	37, 245	Wood, J. R.	8, 111, 112
Wang, C. F.	42, 82, 89, 126	White, L.	187	Wood, P. K.	244
Wang, C. Y.	42, 82, 89, 126	White, R. B.	147, 282	Woodbridge, D. E.	12
Wanjukovf, W.	60, 260, 261	Whitehouse, J.	36, 207	Wood, 76, 77, 79, 129, 239, 242, 243	
Wansborough, W. D.	290	Whiteside, F. W.	8, 122	Woodhead, H. G. W.	42
Ward, H. L.	61, 267	Whitney, A. W.	87	Woodhouse, B. M.	285
Ward, L. K.	48, 58, 109, 111	Whitney, W. R.	51	Woodruff, E. G. 20, 140, 149, 307	
Wark, N. J.	180	Whittuck, J. C. S.	247	Woodruff, G. B.	217
Warner, G. G.	17	Whyte, F. W. C.	14, 55, 256	Woodson, E. F.	197
Warner, I.	300	Wichern, G.	169, 174	Woodward, H. P.	40, 67
Warren, C. H.	28, 28, 76, 110, 175, 310	Wickware, F. G.	283, 289, 291	Woodward, S. M.	284
Warner, S. D.	235	Wiebe, H. F.	145, 146	Woodworth, R. B.	210
Warwick, A. W.	8, 246	Wiedenfeld, K.	234	Woolley, M. E.	15
Washington, L.	60, 250	Wiedt, J. C. deR. de.	168	Woolrich, W. R.	117, 255
Waterbury, L. A.	152	Wielandt, W.	151, 189	Wooton, P.	11, 181
Waterman, D.	244	Wielezynski, M.	143	Worrell, M. L.	292
Waterman, J. H.	209	Wier, E. M.	212	Worcester, S. A.	8, 78, 222, 239, 246, 248
Waters, A. L.	4, 60, 256	Wiessner,	235, 236	Worcester, W. G.	160
Watkin, R.	201, 202	Wig, R. J.	157	Workman, C. W.	29, 30, 105
Watkins, S. L.	6, 171	Wightman, L. I.	192, 198, 199, 202, 216, 235, 246	Woroniin, S.	148
Watson, T.	182	Wilbur, F. I.	207	Wortmann, K.	287
Watson, T. L. 8, 21, 64, 107, 310		Wilcox, L. L.	231	Wright, C. L.	129, 296
Watson,	40, 69	Wiley, B.	247, 276	Wright, C. W.	118
Wattayne, V. 190, 211, 228, 230		Wiley, C. N.	155, 268	Wright, F. C.	218
Watts, O. P.	52, 87, 250	Wilhelm, A.	195, 208	Wright, F. E.	305
Watts, W. W.	132, 314	Wilke, Wm.	169	Wright, F. S.	25, 120
Weatherbee, D. A.	45, 68, 233	Wilkins, G.	88	Wright, I. A.	32, 76
Webb, S. C.	171	Wilkinson, G.	290	Wunderlich, H.	298
Webber, H. O. K.	36, 38	Wilkinson, J. R.	290	Wunstorf, W.	176, 181, 310
Webber, J.	110, 254	Wille, H.	194, 219, 278	Wust, F.	86, 87, 256, 259
		Williams, A. D.	131	Wyatfield,	137, 282, 295
		Williams, A. F. 38, 170, 189, 214		Wyman, T. B.	214, 230
		Williams, F. M.	268	Wynne-Roberts, R. O.	28, 120

MINING WORLD INDEX OF CURRENT LITERATURE.

Y.		Youngs, M. P. 12, 76	Zerkowitz 285
Yale, C. G. 1, 6, 63, 182		Young, Wm. 282, 285	Zern, E. N. 22, 134, 211, 315
Yeatman, P. 15, 55			Ziekursch 202, 294
Yensen, T. D. 276		Z.	Ziesemer, H. W. K. 109
Yerby, W. J. 40, 69, 125		Zalinski, E. R. 15, 20, 97, 104	Zimmermann 176, 311
Young, C. M. 206, 229		Zänker, W. 175	Zink, R. J. 52, 232
Young, E. S. 158		Zapfe, C. 12, 80, 304	Zipser, M. E. 199
Young, G. 77, 82		Zehring, W. S. 20	Zook, J. A. 13, 97, 113
Young, G. J. 15, 106, 202, 207, 214, 245, 248		Zelaya, C. 33, 142	Zuber, R. 144, 201, 307
		Zenker, L. 16, 161	Zulch, W. G. 186, 218
		Zerge, A. 181	Zumbusch, E. 53
			Zur Nedden, S. 203

SUBJECT INDEX.

A		Assaying; Chemistry—(Continued)—	
Abrasives	162	Equipment; Laboratory and Pros- pectors'	265
Accidents—		Precious and Rare Metals; Ores	74, 105, 265
Gas and Dust Explosions	223	Base Metals; Metalloids	61, 98, 109, 116, 266
Fires	224	Non-Metals	131, 146, 154, 155, 164, 266
Miscellaneous, in Mining	224	Gases and Liquids	205, 268
In Milling, Metallurgy, etc.	225	General and Miscellaneous	269
Workmen's Compensation, Insurance, etc.	236	Sampling	269
Accounts and Bookkeeping	212	Siderurgic Chemistry	85
Acetylene Mine Lights	211	Chemistry of Cyaniding	245
Acids	162	Australasia	46-49
Adits	199, 200	Copper	58
Africa	34-40	Gold	69
Africa at large	34	Iron Ore	79
British South Africa	34	Iron and Steel	82
Congo; Central Africa	39	Silver	105
East Africa	39	Tin	109
West Africa	39	Zinc	114
North Africa	40	Coal	125
Copper	57	Austria (see Europe).	
Gold, South Africa	68		
Gold, Rest of Africa	69		
Iron Ore	78		
Iron and Steel	82		
Silver	105		
Tin	108		
Zinc	114		
Coal	125		
Petroleum	143		
Alabama	2		
Alaska	2		
Alberta	24		
Algeria	40		
Alkali	181		
Alloys—			
Brasses; Bronzes; Copper Alloys ..	50		
Aluminum	50		
Antimonial	51		
Pyrophoric (Cerium)	53		
Other Non-Ferrous	51		
Ferro-Alloys	84		
Aluminum	51		
Aluminum alloys	50		
Alums	181		
Amalgamation	72, 243		
Amber	163		
Ammonium Sulphate	138		
Analysis (see Assaying).			
Animal Haulage	215		
Ankylostomiasis	226		
Annealing	92		
Antimony	52		
Antimonial alloys	51		
Anthracite; see Coals.			
Arabian Peninsula	40		
Argentina	32		
Arizona	3		
Arkansas	4		
Arsenic	163		
Asbestos	163		
Asia	41-46		
Copper	57		
Gold	67		
Silver	105		
Tin	108		
Zinc	114		
Iron Ore	79		
Iron and Steel	82		
Coal	125		
Petroleum	143		
Asia Minor	40		
Asphalts and Bitumens—			
Mineral Asphalts, etc.	164		
Coal, Coke and Peat By-Products ..	164		
Testing; Chemistry; Preparation ..	164		
Uses	165		
Geology; Genesis; Classification ..	165		
Assaying; Chemistry—			
Textbooks; General Works	264		

Assaying; Chemistry—(Continued)—	
Equipment; Laboratory and Pros- pectors'	265
Precious and Rare Metals; Ores	74, 105, 265
Base Metals; Metalloids	61, 98, 109, 116, 266
Non-Metals	131, 146, 154, 155, 164, 266
Gases and Liquids	205, 268
General and Miscellaneous	269
Sampling	269
Siderurgic Chemistry	85
Chemistry of Cyaniding	245
Australasia	46-49
Copper	58
Gold	69
Iron Ore	79
Iron and Steel	82
Silver	105
Tin	109
Zinc	114
Coal	125
Austria (see Europe).	

B	
Baja California	30
Ball Mills	238
Barytes	165
Baths, Miners'	226
Bauxite	51, 165
Bins and Pockets	300
Bismuth	53
Bitumens; see Asphalts.	
Bituminous Coals (see Coals).	
Blast Furnaces—	
Furnace Practice	90
Individual Furnaces	89
Slags; Flue Dust; Gas	91
Blast Furnace Gas Engines	283
Blast Roasting	261
Blasting	193, 194, 195
Blowers and Fans	205, 285
Boilers (see Steam).	
Bolivia	32
Bookkeeping	212
Borax, Borates	166, 182
Boring (see Drilling).	
Borneo	42
Brasses	50
Brazil	32
Breakers	128
Brick and Tile	159
Drying; Pressing; Kilns	160
Tile	160
Briquetting	80, 129, 295
British Columbia	24
British Guiana	33
Bromine, Iodine, Chlorine	182
Bronzes	50
Buckets	188
By-Products (Coking)	138

C	
Cables; Haulage and Hoisting	215
Cableways	222
Calcium	53
California—	
Oil and Gas	4
Gold Dredging	5
Gold Mining, Copper, Miscellaneous ..	5
Canada and Newfoundland—	
At large	24
By Provinces and Territories	24-28
Copper	56
Gold, western Canada	64
Gold, eastern Canada	65
Iron Ore	76
Iron and Steel	83

MINING WORLD INDEX OF CURRENT LITERATURE.

Canada—(Continued)—		Coals—(Continued)—	
Silver	102	Coking; Gas-Producers, etc.	135
Zinc	113	Coal Cutters	192
Coal	120	Coal Dust	207, 223, 228
Petroleum	141	Cobalt	54
Canadium	63	Coke-Oven Gas Engines	283
Candles	211	Coking; Gas-Production; By-Products—	
Cape Colony	34	Gas Works; Commercial Gas	135
Carbide Lamps	211	Coke and Coking	135
Carborundum (Abrasives)	162	Producer Gas; Gas-Producers	136
Cars and Accessories—		By-Products	138
Haulage	217	Colombia	33
Holisting	217	Colorado	6
Caribbean Sea	32	Coloring; Metals	263
Celebes	42	Combustion—	
Cement—		Coals	131
Plant and Raw Materials	153	Spontaneous Combustion	130
Slag and Iron Cements	154	Fuels in Smelting	257
Tests, Setting, Properties	154	Combustion Engines—	
Constitution; Chemistry	155	Oil and Gas Engines for Power	232
Production; Statistics; Trade	155	Diesel Motors	233
Cement Pipe and Tile	156	Gas Turbines	233
Text-Books; General Works	156	Blast-Furnace and Coke-Oven Gas-Engines	233
Concrete	156	Haulage, Holisting, Traction	216, 220, 233, 300
Cement Gun	158	Compensation, Workmen's	234, 236
Sandline	159	Compressed Air—	
Lime and Mortar	158	Compressors, Transmission and Plant	284
Cement Injection	198	Fans and Blowers	205, 235
Cementation (Ferrous)	92	Haulage, Holisting	216, 220, 236
Central Africa	39	Pumps, Drills, Miscellaneous Applications in Mine and Mill	203, 236
Central America	31	Concentration: Sorting, Sizing, Washing—	
Centrifugal Pumps	202	General and Miscellaneous	240
Ceramics (see Brick, Clays)		Coal	128
Cerium	53	Washing	241
Ceylon (India)	42	Slimes, Thickeners, Filters	245
Change Houses	226	Flotation	242
Chemistry (see Assaying)		Electrostatic and Magnetic Separation	242
Chihuahua	29	Dry Placers	243
Chile	33	Concrete	156
Chilean Mills	238, 239	Concrete Supports in Mining	210
China—		Congelation (Shaft Sinking)	198
China	41	Congo	39
French Indo-China	46	Conservation, Pro and Contra	313
China Clays	162	Wastes Disposal	293
Chlorination	72, 262	Coal	132
Chlorine, Iodine, Bromine	182	Constantine	40
Chromium	53	Consumption (Phthisis)	207, 226
Clays—		Converters—	
Brick and Tile	159	Electric	275
Refractories	162	Metallurgic	58, 254
China Clays	162	Conveyors and Elevators	299
Ceramics, General	160	Face Conveyors	215
Coals—		Copper	54-62
Mines, Mining, Coal Trade—		United States and Alaska	54
Alaska, Western Canada	120	Canada	56
Eastern Canada; Canada	120	Mexico, Central America, W. Indies	56
Appalachian States; U. S.	120	South America	56
Central States	121	Europe	57
Rocky Mountain States	122	Africa	57
Latin America	122	Asia	57
Great Britain	123	Australasia	58
France-Belgium-Holland	123	Milling; Smelting; Refining	58
Germany-Austria	123	Assaying; Chemistry	60, 256
Rest of Europe	125	Uses	61
Africa	125	Alloys	50
Asia, Australasia	126	Statistics; Market Reviews	61
Geology, Genesis	127, 306	Geology	61
Details of Practical Mining	127	Core Drilling	189
Breakers and Tipples	128	Corrosion, Iron and steel	86
Sizing, Screening, Washing	128	Corundum (Abrasives)	162
Use of Low-Grade Coals	128, 295	Costa Rica	31
Briquetting	129, 295	Cranes	298
Electricity from Coal Mines	129	Lifting Magnets	299
Transport; Handling	129, 297	Crushing (see Reduction)	
Spontaneous Combustion; Storage	130	Cryolite	166, 169
Purchasing Bases	130	Cuba	31
Analysis and Testing	131	Cutting Machines	192
Combustion; Boiler Tests; Use	131	Cyaniding—	
Economics—		General, Miscellaneous	243
Conservation; Estimates of Visible Supplies	132, 313	Agitation, Decantation	244
Government Coal Mines	132, 312	Precipitation	244
Legislation on Coal Mining	132, 311	Slimes, Thickeners, Filters	245
Strikes, Profits, Wages	133, 234	Tube Milling; Fine Grinding	238, 245
Labor Problems	232		
Economics of Coal Trade	133		
Miscellaneous	134		

MINING WORLD INDEX OF CURRENT LITERATURE.

Cyaniding—(Continued)—	
Chemistry of Cyanide Process.....	245
Electrocyaniding	246
Cyanide Mills	246
General Papers; Textbooks.....	247

D

Dakotas—	
North Dakota	16
South Dakota	18
Dams	201
Delaware	8
De-Tinning	110
Diamonds	166, 169
Diamond Drilling.....	189
Diesel Motors	283
Diseases (see Pathology).	
Distillation, Petroleum.....	145, 146
Dividends and Profits.....	314
Coal Mining	133
Diving Rods	184
Docks, Ships, Shipping.....	297
Drafting	185
Drainage; see Water.	
Dredges and Dredging.....	186
Examination of Dredging Ground.....	187
Dredging, California.....	5
Dressing (see Ore Dressing).	
Drifts and Drifting.....	200
Drilling and Boring—	
Drills Proper—	
Diamond and Core Drilling.....	189
Oil-Well and Deep Boring.....	190
Prospecting Drills	191
Stope Drilling	191
Drill Steel; Bits; Accessories.....	191
Drill-Dust Problem	191
Hole Dressing for Blasting.....	192, 194
Miscellaneous	194
Mechanical Cutters (Coal cutters, channelers, tunnelers, stone saws)	192
Dry Placers	243
Drying—	
Brick and Clays.....	160
Ore Drying	248, 261
Durango	29
Dust—	
In Mines	191, 206
In Milling	232
Coal Dust.....	207, 223, 228
Flue Dust.....	80, 91, 260
Dutch Guiana.....	33
Dynamite	193

E

East Africa	39
East Indies	42
Economics of Mining, etc.....	314
Coal Trade	132, 133, 134
Educational	316
Egypt	40
Electricity in Mine, Mill, etc.—	
Power Plants; Generators.....	271
Generation at Collieries.....	129, 272, 295
Hydro-Electric	273
Power Transmission	275
Converters; Local Transmission, Meters, etc.....	275
Motors	276
Storage Batteries; Dry Cells.....	277
Electric Blasting.....	195
Electric Lighting	210, 277
Electric Pumps, Fans, Drills.....	202, 277
Telephones	212, 277
Signalling	212, 217, 221, 277
Haulage and Hoisting.....	216, 219, 277
Miscellaneous and General Applications; in Mining.....	279
Same: in Milling, Transportation, etc.....	281
Accidents, Safety, Rescue.....	229, 280
Magnetic and Electrostatic Ore-Dressing	242, 281
Electrometallurgy	98, 249
Miscellaneous	281

Electromagnetic Ore Dressing.....	242
Electromagnets, Lifting	299
Electrometallurgy; Electrochemistry—	
Ore-Dressing; Magnetic, Electrostatic	242
Electrolytic Metal Refining.....	95, 115, 249
Electroplating	249
Electrolysis: Miscellaneous.....	250
Electrocyaniding	246
Electrosiderurgy	93
Furnaces: Non-ferrous metals.....	115, 251
Furnaces: Non-Metals, Miscellaneous	252
Electrosiderurgy—	
Smelting and Heating.....	93
Electrolytic Iron	95
Electrostatic Separation.....	242
Elevators and Conveyors	299
Emerald (Gems)	170
Emery	162
Engines (see Power and Machinery).	
England (see Europe).	
Ecuador	33
Excavators	188
Europe—	
Production Statistics	117
Copper	57
Gold	66
Iron Ore	77, 78
Iron and Steel	81
Silver	105
Tin	108
Zinc	114
Coal	123, 125
Petroleum	142, 143
Explosions	223
Explosives and Blasting—	
Permissible Explosives.....	193
Miscellaneous Explosives.....	193
Drill-Hole Preparation	194
Fuses and Exploders.....	194
Blasting and Shooting.....	194
Blasting Gases; Mine Ventilation in Shooting	208
Electric Firing	195
Safe Handling and Use.....	195
Miscellaneous	195
Eye-Diseases (Miners')	226

F

Face Conveyors	215
Falls of Ground	208, 224
Fans and Blowers.....	205, 285
Faults, Geology	304
Feldspar	180
Potash from Feldspathic Rocks.....	176
Ferro-Alloys	84
Fertilizers—	
Phosphates	166
Guanos	168
Slag Fertilizers	168
Miscellaneous	168
Potash	169, 175
Nitrogen	138, 168, 173
Lime	158, 168
Fiji (Polynesia)	49
Filing and Indexing.....	317
Filters	245
Financial, Promotion, Business Organization—	
General and Miscellaneous.....	314
Syndicate Organization	315
Firedamp.....	207, 211, 223, 227
Fires	224
Fire Protection	204, 230
First Aid	226
Flooding of Oil Wells.....	144
Flooding of Mines.....	201
Flotation	242
Fluorspar and Cryolite	169
Flue Dust.....	80, 91, 260, 293
Folds, Geology.....	304
Formosa (Japan)	43
Florida	8
France (see Europe).	
Freezing (Shaft Sinking).....	198
French Indo-China.....	46

MINING WORLD INDEX OF CURRENT LITERATURE.

Fuels—	
Chapter VI.....	120-151
Smelting Fuels.....	257
Fuel Oil.....	146
Fuller's Earth.....	169
Fumes, Furnace.....	260, 293
Furnaces (see Thermic Metallurgy).	
Steam Raising.....	287
Electric.....	93, 251, 252
Fuses and Exploders.....	194

G

Gages (Water).....	204
Gas—	
Commercial Gas.....	135
Coke and Coking.....	135
Producer-Gas.....	136
Peat Gas.....	138
Oil Gas.....	138
Natural Gas.....	149
Furnace Gases.....	91, 260
Gas Engines—	282
Gas Turbines.....	283
Blast-Furnace and Coke Oven Gas-Engines.....	283
Gases in Mines; Ventilation—	
Testing and Analysis of Mine Gases.....	205
Fans.....	205
Ventilation: Volume and Pressure.....	206
Humidifying; Dust Control.....	206
Firedamp and Coal Dust.....	207
Gas-Testing Lights.....	211
Pathology; Mine-Air Conditioning.....	207
Ventilation-Blasting Problem.....	208
Mine and Rock Temperatures.....	208, 302
Text-Books; General Works.....	208
Miscellaneous.....	207
Gasoline Engines (see Combustion Engines).	
Gasolines from Natural Gas.....	150
Galvanizing.....	84, 117
Gears.....	271
Gems—	
Diamonds.....	38, 169
Miscellaneous.....	170
Generators, Electric.....	129, 271, 272
Hydro-Electric.....	273
Gas-Producers, Combustion Engines.....	136, 282
Steam.....	287
Geology; Ore Genesis—	
Mine and Underground Waters.....	201, 301
Earth and Rock Pressures.....	208, 302
Rock and Deep Temperatures.....	208, 302
Mineralization.....	302
Vulcanism; Metamorphism; Contact Deposits.....	303
Tectonics: Faults, Folds.....	304
Textbooks; General Works.....	304
Geology of Goldfields.....	74, 305
Carbons and Hydrocarbons.....	127, 148, 149, 165, 306
Silver-Lead-Zinc and Sulphides.....	96, 106, 114, 307
Geology-Genesis of Placers.....	308
Iron, Copper, Miscellaneous.....	62, 80, 110, 114, 308
Georgia.....	8
German Africa—	
Africa at large.....	34
German E. Africa.....	34, 39
German S. W. Africa.....	34, 39
Germany (see Europe).	
Gold—	
Goldfields; Mining, Production—	
Pacific Coast States.....	5, 63
Rocky Mountains, Dakotas.....	63
East, Central and Southern States.....	64
Alaska, Western Canada.....	64
Eastern Canada.....	65
Mexico.....	66
Central and South America; W. Indies.....	66
Europe.....	67
Asia (incl. Russia).....	67

Gold—(Continued)—	
South Africa.....	35, 37, 68
Rest of Africa.....	69
Australasia.....	69
Dredging; Hydraulic Mining.....	5, 70, 186, 188
Milling; Metallurgy—	
Ore Dressing; Gravel Dressing.....	70
Cyaniding.....	72, 243
Chlorination.....	72, 262
Amalgamation.....	72, 262
General Milling and Metallurgy.....	72, 238
Smelting, Refining.....	73, 253
Assaying, Chemistry.....	74, 265
Statistical; Market Reviews.....	74
Geology; Genesis.....	74, 305
Gold Coast.....	39
Government Ownership of Mines.....	132, 312
Granite (Stone).....	152
Graphite.....	171
Great Britain (see Europe).	
Grinding (see Reduction).	
Grindstones (Abrasives).....	162
Guanajuato.....	29
Guano.....	168
Guatemala.....	31
Guerrero.....	29
Guiana.....	33
Guinea.....	39
Gums (Mineral).....	171
Gypsum.....	171

H

Haulage—	
Animal Haulage.....	215
Face Conveyors.....	215
Locomotives.....	216, 277, 283, 286, 291
Track; Cars; Accessories.....	217
Signalling; Safety.....	212, 217, 230
Miscellaneous.....	217
Cables.....	215
Cableways; Trestles, Inclines.....	222
Conveyors and Handling.....	297, 299
Headers.....	192
Hidalgo.....	29
Historical.....	317
Iron and steel.....	88
Holisting—	
Headworks, Cars, Shaft Equipment.....	217
Electric Holisting.....	217, 219
Steam Holisting.....	220, 291
Compressed-Air Holists.....	220, 286
Combustion-Engine Holisting.....	220, 283
Signalling; Over-Winding.....	212, 221, 230
Cableways, Inclines.....	222
Cranes and Handling.....	297, 298, 299
Textbooks; General Works.....	220
Miscellaneous.....	221
Holland (see Europe).	
Honduras.....	31
Hooa-Worm (Miners').....	226
Horse Haulage.....	215
Humidifying of Mine Air.....	206
Hungary (see Europe).	
Hydraulic Filling, Stowing, etc.....	210
Hydraulic Mining.....	188
Dredging.....	186
Hydraulic Power and Machinery.....	291
Hydro-Electric.....	273
Hydrochloric Acid.....	162
Hygiene, Safety, Rescue—	
In Mining.....	225
Rescue Stations; Rescue Equipment.....	225
First Aid.....	226
Sanitation; Baths; Change Houses.....	226
Miners' Diseases; Pathology.....	207, 226
Precautions Against Firedamp.....	207, 227
Coal Dust Problem.....	207, 228
Electricity; Safety and Hygiene.....	280, 229
Fire, Inflammables, Explosives.....	204, 195, 230, 297
Haulage.....	212, 217, 230
Holisting.....	212, 217, 221, 230
Safety Against Flooding.....	144, 201, 231

MINING WORLD INDEX OF CURRENT LITERATURE.

Hygiene, Safety, Rescue—(Continued)—	
General and Miscellaneous.....	231
In Milling, Metallurgy, Transport, etc.	231
Dust Problem in Mills.....	232

I

Idaho	9
Illinois	9
Inclines	222
Indexing and Filing.....	317
India	42
Indiana	10
Indo-China	46
Inspection in Mines.....	234
Insurance, Workmen's	236
Iodine, Chlorine, Bromine.....	182
Iowa	10
Inundations	201
Iridium	96
Iron and Steel Mine Props.....	210
Iron and Steels—	
Ores and Mining—	
Lake Superior (incl. Ontario).....	75
East and Southern U. S.	76
Middle and Western U. S.	76
Canada	76
Mexico; West Indies; Cuba.....	76
South America.....	77
Scandinavia	77
Germany; Luxemburg	77
France; Rest of Europe.....	77
Africa	78
Asia	79
Australasia	79
Transportation, Handling.....	79
Geology; Genesis	80, 308
Ore Dressing; Roasting.....	80
Briquetting; Sintering	80, 295
Iron and Steels—	
Industry in Europe.....	81
Africa, Asia, Australasia.....	82
South America	82
United States	82
Industry in Canada.....	83
Nomenclature	83
Special Irons and Steels.....	87
Ferro-Alloys	84
Tin Plate	84, 110
Galvanized Iron	117
Electrolytic Iron	95
Chemistry of Siderurgy.....	85
Properties, Testing, Corrosion.....	86
Historical	88
Miscellaneous	88
Furnace and Heat Treatment—	
Text-Books, General Works.....	89
Individual Furnaces and Mills.....	89
Blast Furnace Practice.....	90
Slags; Flue Dust; Gas.....	91, 260
Steel Manufacturing; Finishing.....	91
Cementation; Tempering; Annealing.....	92
Rolling Mills	93
Electric Steel and Ore-Smelting.....	93
Miscellaneous	95
Italy (see Europe).	
Ivory Coast	39

J

Jalisco	30
Japanese Empire	43
Java	42

K

Kansas	10
Katanga	39
Kayser Process	178
Kentucky	10
Kilns—	
Cement	153
Lime	158
Brick	159, 160
Korea (Japan).....	43

L

Labor, Management, Sociological.....	232
Labor Conditions, General.....	232
Sociology, Welfare Work.....	233
Time-Keeping Systems.....	233
Management; Inspection.....	234
Wages; Hours; Strikes; Unions.....	133, 234
Workmen's Compensation, Insurance, Pensioning	236
Labrador	26
Lake Superior (see Michigan).	
Lamps (see Lighting).	
Law; Legislation; Taxation—	
General and Miscellaneous.....	310
Affecting Coal Mining.....	132
Taxation	312
State Ownership; Nationalization.....	132, 312
Conservation, pro and contra.....	313
Lead—	
Mines and Mining; Geology.....	96, 307
Ore Dressing	97
Metallurgy; Chemistry	98
Paints and Pigments	174
Lead Poisoning	231
Legislation (see Law).	
Lifting Magnets	259
Lighting and Signalling—	
Electric Mine Lights.....	210
Acetylene	211
Safety Lamps (Oil).....	211
Gas Testing Lights.....	211
Candles	211
General Works on Lighting.....	211
Telephones	212
Signalling	212
Lignite (see Coals).	
Lime and Mortar.....	158
Sandlime	159
Lithium	99
Locomotives (see Haulage).	
Louisiana	10
Lower California	30
Low-Grade Fuels	128, 295
Lubricants	271

M

Machinery (see Power and Machinery)—	
Electric	271
Combustion Engines	282
Compressed Air	284
Steam	287
Hydraulic	291
Madagascar	39
Magnesite (see Law).	
Magnesium	172
Magnetic Ore-Dressing	100
Magnets, Lifting	242
Maine	299
Makatea (Polynesia).....	11
Malay	49
Manganese	44
Manitoba	99
Marble (Stone)	26
Maryland	152
Management	11
Meerschbaum	234
Mercury	172
Mercurial Poisoning	100
Metallurgy	231
Iron and Steel.....	263
Metallurgy—	
Ore Dressing; Chapter X.....	84
Thermic Metallurgy; Chapter XI.....	238
Siderurgy; Chapter IV.....	249
Lead	75
Silver	98
Tin	105
Zinc	109
Metamorphism, Contact Deposits.....	116
Meters—	
Electric	303
Water	275
Mexico—	
At large	204

MINING WORLD INDEX OF CURRENT LITERATURE.

Mexico—(Continued)—	
By States and Territories.....	29, 31
Mexico (State)	30
Copper	56
Gold	66
Silver	104
Petroleum	31, 141
Mica	172
Michigan, Minnesota, Lake Superior—	
Iron	11, 75
Copper	12, 54
Miscellaneous	13
Rolling and Milling, Chapter X.....	238-248
Mine and Mining, Chapters VIII, IX.....	183-237
Mine Models	186
Mineral Waters	172
Minnesota (see Michigan)—	
Iron	11
Miscellaneous	13
Miscellaneous Metals and Non-Metals.....	117
Mississippi	13
Missouri	13
Models (Mine)	186
Molybdenum	100
Montana	13
Morocco	40
Mortar and Lime	158
Motor Trucks, Tractors.....	300
Motors—	
Electric	276
Haulage and Hoisting.....	216, 217, 220
Mule Haulage	215

N

Natal	35
Natural Gas—	
Occurrences; Geology	149
Extraction and Use	150
Gasolines from Natural Gas.....	150
Nevada	14
New Brunswick	26
New Caledonia (Polynesia).....	49
Newfoundland	26
New Guinea	42
New Mexico	15
New South Wales.....	46
New York	16
New Zealand	47
Nicaragua	31
Nickel	100
Nigeria	39
Niobium	107
Nitrates, Nitrogen.....	173
Ammonium Sulphate	138
Fertilizers	168
Nitric Acid.....	162, 173
Nomenclature of Iron and Steels.....	83
North Africa	40
North Carolina	16
North Dakota	16
Northern Territory	47
Norway (see Europe).....	
Nova Scotia	26
Nyassaland	39
Nystagmus	226

O

Oaxaca	30
Ohio	16
Oklahoma	16
Ontario	26
Oil (see Petroleum).....	
Oil Engines	146, 282
Oil Flotation (Ore Dressing).....	242
Oil Gas	138
Oil Shale	145
Orange Free State.....	35
Oran	40
Ore Dressing—	
Reduction (Crushing, Grinding).....	238
Concentration	240
Mill and Milling, Chapter X.....	238
Gold	70

Ore Dressing—(Continued)—	
Iron	80
Lead	97
Silver	105
Tin	109
Zinc	114
Ore Reserves: Estimation and Valuation	213
Oregon	17
Osmium	101
Overwinding	221

P

Packing in Mines.....	210
Paints and Pigments.....	174
Palladium	101
Panama	31
Papua	47
Pathology—	
Mine Air	207
Mining in General	226
Peat—	
General and Miscellaneous.....	150
Peat Gas-Producers.....	138
Peat Fertilizers	168
Pennsylvania	17
Pensioning	236
Permissible Explosives	193
Persia	40
Peru	34
Petroleum and Oils—	
Statistics	139
Oil Fields—	
General	140
California	4
Western United States.....	140
Eastern and Central U. S.....	141
Alaska, Canada	141
Latin America, West Indies.....	141
Russia	142
Middle and East Europe.....	142
Southern and West Europe.....	143
Asia, Africa	143
Australasia	144
Water Problems in Oil Fields.....	144
Details of Well Practice.....	144
Well-Drilling, Deep Boring.....	190
Transport, Handling, Storage.....	144
Shale Oil	145
Distillation and Products.....	145
Chemical Technology; Tests.....	146
Uses	148
Geology; Genesis	148, 306
General and Miscellaneous.....	148
Asphalts and Bitumens.....	164
Natural Gas.....	149
Philippine Islands	44
Phonolite	176
Phosphate Rock and Phosphates.....	166
Phthisis	207, 226
Pillars and Pillar Mining	200, 209
Pipe-Lines	144
Placers—	
Dry Placers, Metallurgy.....	243
Geology and Genesis	308
See also under Goldfields.....	
Planes, Inclined.....	222
Plating; Coloring (Metals).....	263
Electroplating	249
Galvanizing; Zinc Plating.....	117
Tin Plate	84, 110
Platinum Metals	101
Pockets and Bins.....	300
Polynesia	49
Potash—	
General and Miscellaneous.....	175
Phonolite; Feldspathic Rocks.....	176
Potash from Sea-Weeds.....	177
Search for Potash in U. S.....	177
Kayser Process	178
Power and Machinery; Chapter XII.....	271
Power Shovels	188
Precious Stones (Gems).....	169
Producer Gas.....	136
Profits and Dividends.....	314

MINING WORLD INDEX OF CURRENT LITERATURE.

Profits and Dividends—(Continued)—	
Coal Mining	133
Promotion	314
Props (see Supports).	
Prospects, Prospecting	183
Divining Rods; Wireless Telegraphy	184
Prospecting Drills	191
Dredging Ground	187
Puebla	30
Prussia (see Europe).	
Pulsator Pumps	204
Pulverizing (see Reduction).	
Pumps: Mine and Mill (see Water).	
Pyrite and Sulphur	178
Pyrometry	253

Q

Quartz, Feldspar, Silicates	180
Quebec	28
Queensland	47

R

Radium and Radio-Actives	102
Railroads and Transportation	300
Rare Earths	107
Reduction (Crushing, Grinding, etc.)	238
Stamp Milling	238
Ball and Tube Mills; Fine Grinding	238
Miscellaneous	239
Refining (see Smelting and Refining).	
Petroleum	145, 146
Refractories	162, 257
Rescue (see Hygiene, Safety, Rescue).	
Reserves, Ore: Estimation and Valuation	213
Reservoirs, Petroleum	144
Rhode Island	18
Rhodesia	35
Rhodium	103
Roasting	80, 254, 261
Rolling Mills	93
Rolls (see Crushing).	
Rotary Pumps	202
Roumania (see Europe).	
Russia (see Europe).	
Russia in Asia	45

S

Safety (see also Hygiene, Safety, Rescue)—	
Haulage	212, 217, 230
Holisting	212, 217, 221, 230
Handling of Explosives	195, 230, 297
Permissible Explosives	193
Safety Lamps (see Lighting).	
Salines and Alkalis	180
Kayser Process	178
Alums, Soda, Alkalis	181
Borax, Borates	182
Iodine, Chlorine, Bromine	182
Potash	175
Nitrates	173
Gypsum	171
Sampling: Mine, Ores, Products, etc.	269
San Luis Potosi	30
Sandlime	159
Sands	152
Sanitation (see Hygiene, etc.).	
Sapphire (Gems)	170
Saws (Stone)	192
Saskatchewan	28
Screening (Coal)	128
Selenium	103
Senegal	39
Seychelles (Polynesia)	49
Shafts and Shaft Sinking	197
Cementation Process	198
Freezing Process	198
Water and Loose Sands (General)	198
Holisting Equipment	217
Ships, Docks, Shipping	297

Shovels (Power)	188
Siam	46
Siberia	45
Signalling in Mines	212
Silica	180
Silver—	
Canada, Alaska	103
United States	103
Mexico	104
Central and South America	105
Europe, Africa	105
Asia, Australasia	105
Cyaniding	105, 243
Chemistry	105, 265
Smelting; Refining; Metallurgy	105, 253
Geology, Genesis	106, 307
Statistical; Miscellaneous	107
Sinaloa	30
Sinking and Driving	197
Shafts and Shaft Sinking	197
Cementation Process	198
Freezing Process	198
Water and Loose Sands (General)	198
Tunnels and Tunneling	199
Stopes; Drifting; Mining	200
Sintering; Iron Ore, Flue Dust, etc.	80
Siphons	202
Sizing	240
Coal	128
Skips	217
Slags—	
Blast Furnace	91
General	260, 293
Slag Cements	154
Slag Fertilizer	168
Slate (Stone)	152
Slimes; Thickeners; Filters	245
Sluicing	70, 188
Smelting and Refining—	
Electrometallurgy	249
Electrosiderurgy	93
Furnaces, Foundries, etc.	253
Copper	53
Gold	73
Silver	105, 253
Soapstone	182
Sociology	233
Soda	181
Sonora	30
Sorting	240
South Africa	34-39
South Australia	48
South Carolina	18
South Dakota	18
Spain (see Europe).	
Spontaneous Combustion	130
Stamp Milling	238
State Ownership of Mines	132, 312
Steam—	
Furnaces; Fuels; Combustion	131, 287
Boilers and Feed	131, 288
Steam Turbines	289
Engines and Accessories	290
Holisting; Miscellaneous Applications	
General, Miscellaneous	204, 216, 220, 291
Steels (see Iron).	
Stone—	
Building Stone	152
Road Metal	152
Gravel	152
Stone Crushing	152
Quarrying; Stone Cutters	153
Stopes and Stopping	200
Stopping Drills	191
Stowing; Packing	210
Strikes and Lockouts	133, 234
Stripping	188
Strontium	107
Structural Materials—	
Stone; Sand; Gravel	152
Lime; Cements; Concrete	153
Brick and Tile	159
Ceramics	160
Subsidence; Falls of Ground	208, 224
Sulphur	178
Sulphuric Acid	162

MINING WORLD INDEX OF CURRENT LITERATURE.

Supports—	
Geology; Earth Pressures.....	208, 302
Subsidence; Falls.....	208, 224
Pillars and Pillar Mining.....	200, 209
Timbering.....	209
Timber Preservation.....	209
Steel and Iron Props.....	210
Concrete.....	210
Stowing; Packing.....	210
General; Miscellaneous.....	210
Surveying and Drafting—	
Surveying.....	184
Drafting.....	185
Mine Models.....	186
Sweden (see Europe).	
Syndicate Organization.....	315

T

Talc and Soapstone	182
Tamaulipas	81
Tanks, Tank-Cars, Tank-Steamers	144
Tantalum	107
Tars	138
Tasmania	18
Taxation	312
Tectonics	304
Telephones in Mines	212
Tellurium	103, 107
Temperatures, Mine and Rock	208, 302
Tempering	92
Tennessee	19
Tepic	31
Testing—	
Iron and Steel	86
Coals	130, 131
Petroleum and Products	146
Asphalts	164
Cement, Concrete	154, 156
Mine Gases	205, 211
Thermic Metallurgy: Roasters, Furnaces, Smelters, Foundries, etc.—	
Precious Metal Treatment	253
Base Metals; Miscellaneous	254
Refractories, Lining, Walls	257
Fuels; Combustion	257
Pyrometry	258
Blast and Draft	258
Feeding; Discharge; Slags	260
Fumes; Dust; Gas	260, 293
Blast Roasting; Roasting; Drying	261
Electric Smelting	80, 248, 251
Siderurgy	81-83
Metallography	263
Accidents	225
Hygiene and Safety	231
Textbooks	264
General, Miscellaneous	262
Texas	19
Thorium and Rare Earths	107
Tile—	
Cement	156
Clay	159, 160
Timber and Timbering (see Supports).	
Time-keeping	233
Tin—	
North America	108
South America	108
Europe	108
Asia	108
Africa	38, 108
Australasia	109
Metallurgy; Chemistry	109
De-Tinning	110
Geology	110
Tin Plate; Miscellaneous	84, 110
Tipples	128
Titanium	110
Tonkin	46
Topaz (Gems)	170
Tourmalines (Gems)	170
Tourquoise (Gems)	170
Tractors and Traction	283, 300
Transportation; Storage; Handling—	
Coal Storage and Handling	129, 133

Transportation, etc.—(Continued)—	
Iron Ore	79
Oils, Inflammables, Explosives	297
Docks, Ships, Shipping	144, 195, 230, 297
Cranes	298
Lifting Magnets	299
Cableways: Trestles, Inclines	222
Elevators and Conveyors	299
Bins and Pockets	300
Steam Shovels, Buckets	183
Motor Trucks, Tractors	300
Transport in Undeveloped Country	300
Railroads: Miscellaneous	300
General: Text-Books	301
Transvaal—	
Gold Mines and Mining	35
Gold Mills; Milling	37
Coal, Oil, Diamonds, Non-Metals	38
Tin, Copper, Miscellaneous	38
Trestles	222
Trinidad	32
Tripoli	40
Trucks, Motor	300
Trust Organization	315
Tube Mills	238
Tuberculosis, Miners'	207, 226
Tungsten	111
Tunis	40
Tunnels and Tunneling	199
Tunneling Machines	192
Turbines—	
Gas Turbines	283
Steam Turbines	289
Hydraulic	273, 291
Turkey (Asiatic)	40

II

Unions, Strikes and Lockouts, Wages	133, 234
United States—	
U. S. at large	1
By States and Territories	2-22
Uranium	111
Utah	20

V

Valuation—	
Ore Reserves	213
Mining in General	314
Vanadium	112
Venezuela	34
Ventilation: See Gases and Ventilation—	
Vera Cruz	31
Vermont	21
Victoria	48
Virginia	21
Vulcanism	303

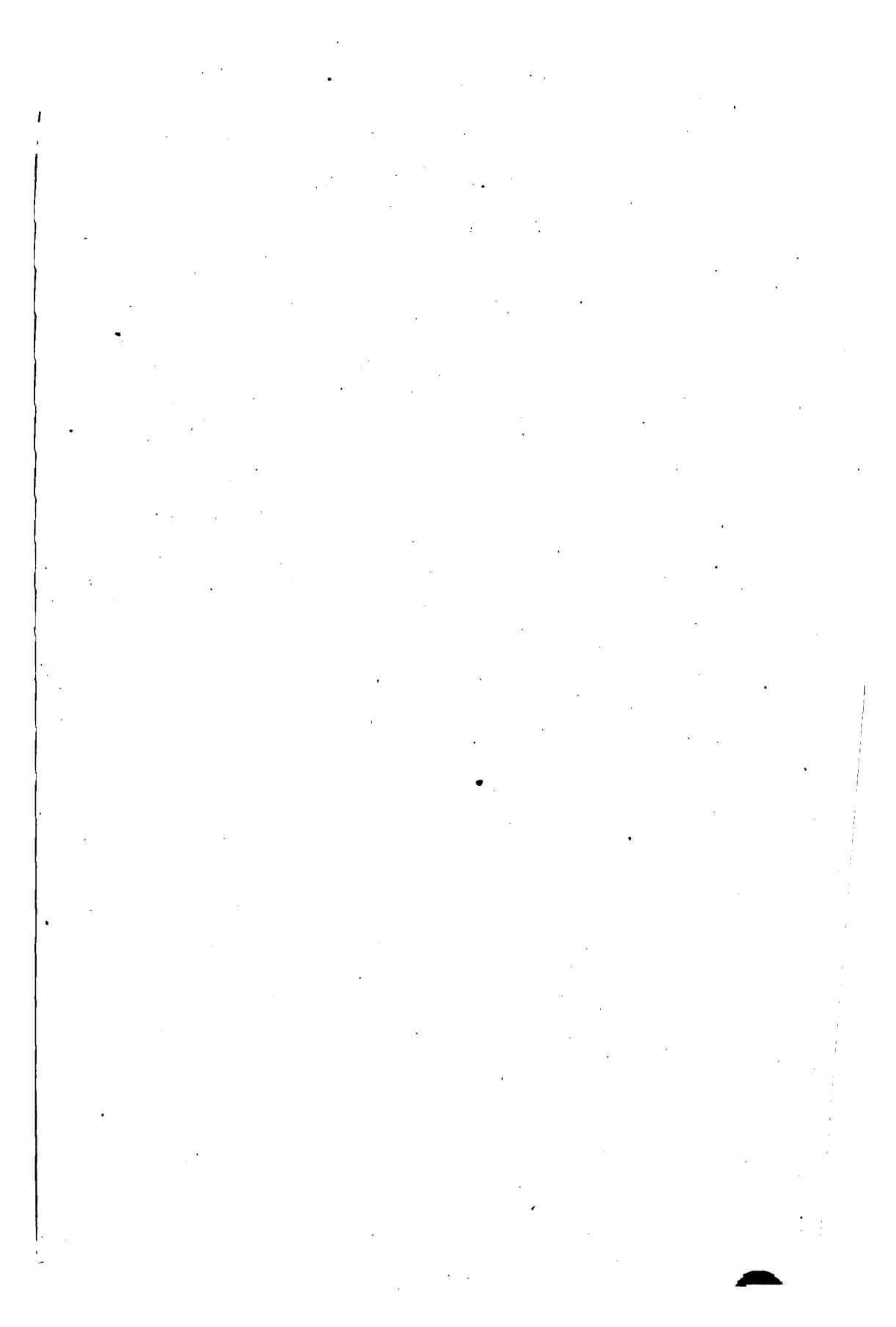
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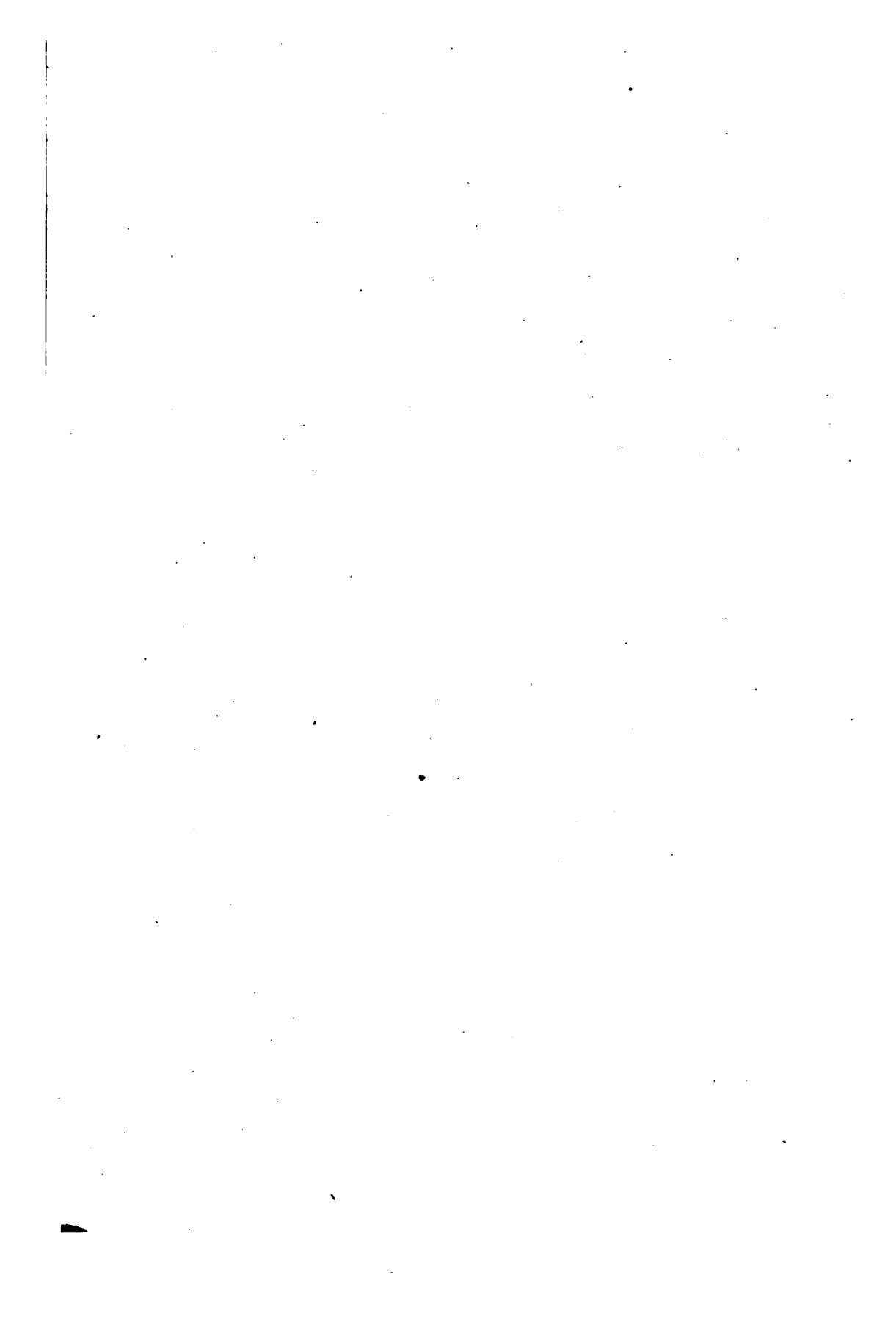
Wages	133,	234
Washing	128, 240,	241
Waste Disposition—		
Fumes; Flue-Dust, Furnace-Gas	91, 260, 283,	293
Slags	91, 154, 163,	293
Mine and Mill Waters	202,	294
Tailing; Sludge		294
Waste and Low-Grade Fuels		295
Briquetting	80, 129,	295
General, Miscellaneous		296
Coke By-Products		138
Water (Mine and Mill); Pumps—		
Geology of Mine Waters		201
Inundations		201
Water-tight Structures, Grouting;		
Dams		201
Tunnels or Drill Holes for Mine		
Drainage		202
Water in Oil Wells		144
Siphons		202
Disposal of Waste Water	202,	294

MINING WORLD INDEX OF CURRENT LITERATURE.

Water, Pumps—(Continued)—		Wyoming	22
Shaft-Sinking	197, 198		
Sinking and Oil Well Pumps.....	204	Y	
Electric and Rotary Pumps.....	202		
Compressed Air Pumping.....	203	Yukon	28
Cornish and Steam Pumps.....	204		
Pulsator Pumps	204	Z	
Meters and Gages	204		
Fire Protection	204	Zacatecas	31
Text-books; General Works.....	204	Zambesia	39
Miscellaneous	205	Zinc—	
Waters, Mineral	172	U. S. and Canada.....	113
Welfare Work	233	Latin America	113
West Africa	39	Europe	114
West Indies	32	Asia; Africa; Oceania.....	114
West Virginia	21	Geology	114
Western Australia	49	Ore Dressing	114
Winding; see Hoisting		Electric Smelting; Electrolysis.....	115
Wireless Telegraphy in Prospecting....	184	Metallurgy; Chemistry	116
Wisconsin	22	Plating; Galvanizing	117
Lakes region	12	Miscellaneous	117
Wood Preservation	209	Zirconium	117
Workmen's Compensation, Insurance			
and Pensioning	236		







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